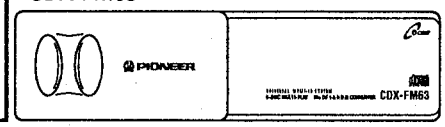
PIONEER®
The Art of Entertainment

Service Manual

CDX-FM63



ORDER NO.
CRT1637

UNIVERSAL MULTI-CD SYSTEM

CDX-FM67 UC,EW
CDX-FM63 UC

NOTE:

- **See the separate manual CX-624 (CRT1631) for the CD mechanism description and disassembly.**
- **The CD mechanism employed in this model is one of CX-624 series.**

COMPACT disc DIGITAL AUDIO

SPECIFICATIONS

CD Player unit

System .....Compact disc audio system
Usable discs .....Compact Disc
Signal format .....Sampling frequency: 44.1 kHz
Number of quantization bits: 16; linear
Power source .....14.4 V DC (10.8 — 15.6 V allowable)
Max. current consumption .....1.0 A
Weight .....2.5 kg (5.7 lbs)
Dimensions .....275 (W)× 69 (H)× 155 (D) mm
[10-7/8 (W)× 2-3/4 (H)× 6-1/8 (D) in.]
FM modulator usable frequency
.....87.9/88.1/88.3/88.5/88.7/88.9/89.1
/89.3/89.5/89.7/89.9/90.1 MHz

Antenna Switching unit

Weight .....140 g (0.3 lbs.)
Dimensions .....45 (W)× 25 (H)× 43 (D) mm
[1-3/4 (W)× 1 (H)× 1-5/8 (D) in.]

Display unit(CDX-FM67)

Weight .....70 g (0.1 lbs.)
Dimensions .....105 (W)× 35 (H)× 18(D) mm
[4-1/8 (W)× 1-3/8 (H)× 5/8 (D) in.]

Control unit(CDX-FM63)

Weight .....70 g (0.1 lbs.)
Dimensions .....55 (W)× 81 (H)× 20(D) mm
[2-1/4 (W)× 3-1/4 (H)× 7/8 (D) in.]

Remote Controller unit(CDX-FM67)

Power source .....Batteries (UM-4/AAA/R03) Two
Weight (including battteries) .....60 g (0.1 lbs.)
Dimensions .....55 (W)× 106 (H)× 15 (D) mm
[2-1/8 (W)× 4-1/8 (H)× 5/8 (D) in.]

CONTENTS

CHAPTER 1

1. SAFETY INFORMATION 1-2
2. OPERATIONS AND CONNECTION 1-3
3. DISASSEMBLY 1-5
4. ADJUSTMENT 1-6
5. EXPLODED VIEW PARTS LIST 1-25
6. ELECTRICAL PARTS LIST 1-29

CHAPTER 2

1. EXPLODED VIEW 2-3
2. PACKING METHOD 2-9
3. CONNECTION DIAGRAM(1) 2-13
4. SCHEMATIC CIRCUIT DIAGRAM(1) 2-17
5. SCHEMATIC CIRCUIT DIAGRAM(2) 2-20
6. CONNECTION DIAGRAM(2) 2-23
7. CONNECTION DIAGRAM(3) 2-27
8. SCHEMATIC CIRCUIT DIAGRAM(3) 2-31
9. BLOCK DIAGRAM 2-33

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K-FFS.NOV. 1994 Printed in Japan

CHAPTER 1

1. SAFETY INFORMATION

1.1 CDX-FM67/UC,FM63/UC

CAUTION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer.
Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty.
If you are not qualified to perform the repair of this product properly and safely; you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).
When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

1.2 CDX-FM67/EW

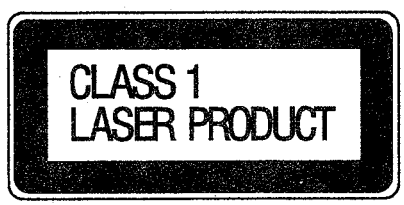
1. Safety Precautions for those who Service this Unit.

- **Follow the adjustment steps (see pages 1-6 through 1-16)in the service manual when servicing this unit. When checking or adjusting the emitting power of the laser diode exercise caution in order to get safe, reliable results.**

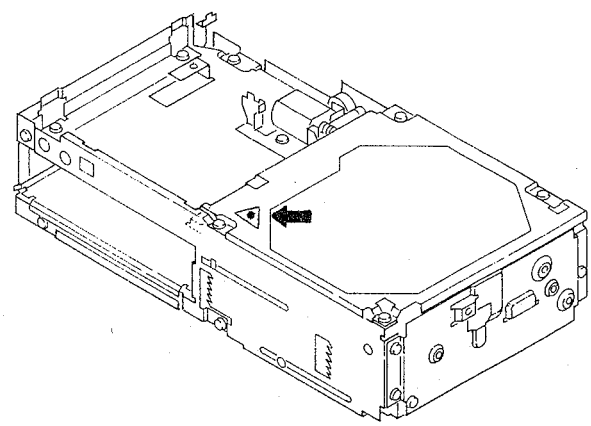
Caution:

1. During repair or tests, minimum distance of 13cm from the focus lens must be kept.
2. During repair or tests, do not view laser beam for 10 seconds or longer.

2. A "CLASS 1 LASER PRODUCT" label is affixed to the rear of the player.



3. The triangular label is attached to the mechanism unit frame.



4. Specifications of Laser Diode

Specifications of laser radiation fields to which human access is possible during service.
Wavelength = 785 nanometers
Radiant power = 69.7 microwatts(Through a circular aperture stop having a diameter of 80 millimeters)
0.55 microwatts(Through a circular aperture stop having a diameter of 7 millimeters)

2. OPERATIONS AND CONNECTION

● CDX-FM67

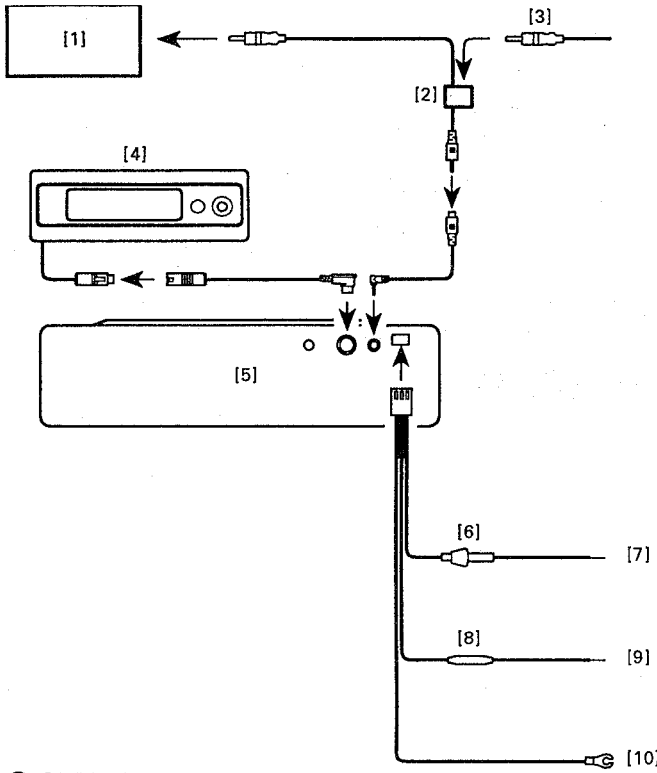


Fig.1

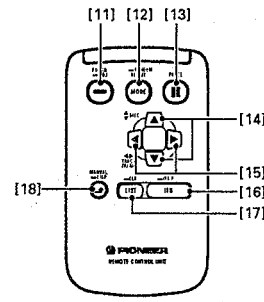


Fig.2

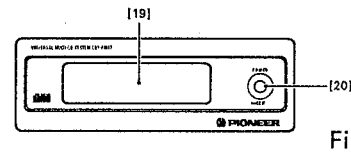


Fig.3

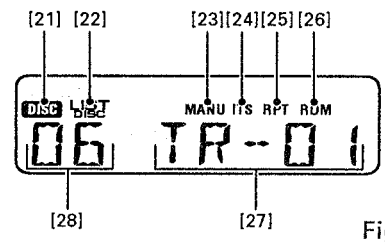


Fig.4

● CDX-FM63

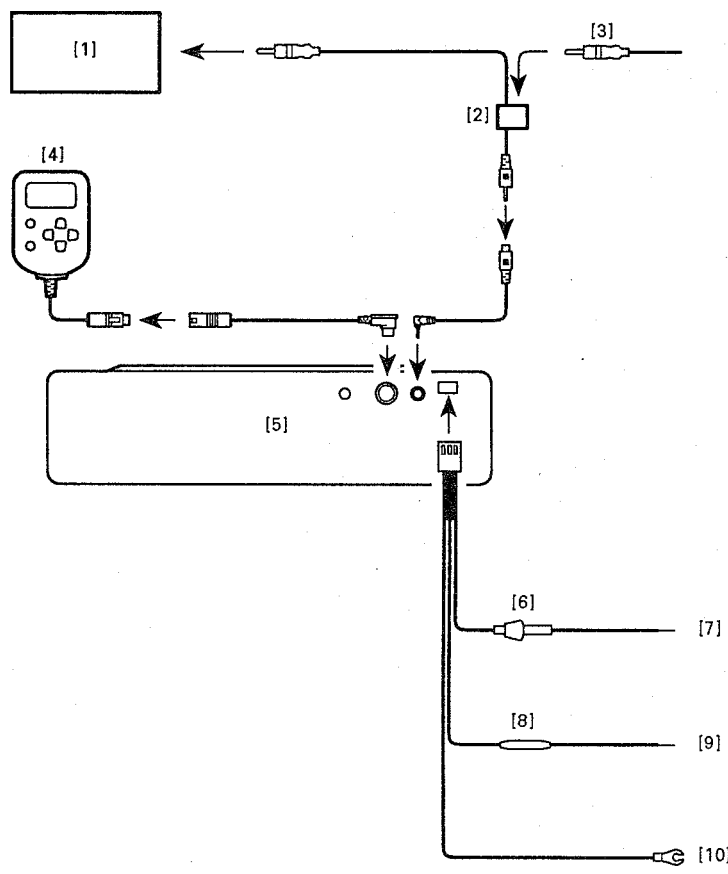


Fig.5

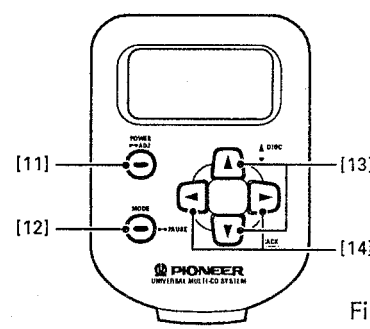


Fig.6

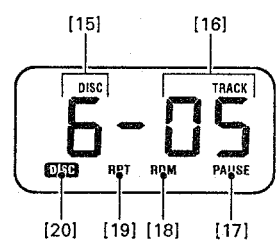


Fig.7

Connecting the Units(Fig.1,5)

[1] FM car radio
[2] Antenna switching unit
[3] Car antenna plug
[4] Display unit(CDX-FM67)
Controller unit(CDX-FM63)
[5] CD Player unit
[6] Fuse holder
[7] Orange
To terminal always supplied with power regardless of ignition switch position.
[8] Fuse resistor
[9] Red
To electric terminal controlled by ignition switch (12 VDC) ON/OFF.
[10] Black (ground)
To vehicle (metal) body.

Playing Compact Discs (CDX-FM67)

Parts Identification

(Fig.2)
[11] Power ON/OFF /Modulator setting mode
[12] Mode
[13] Pause
[14] Disc Number Search
[15] Track Search/Fast Forward, Reverse
[16] ITS (Instant Track Selector)
[17] Program Clear/Title List
[18] Search mode selection/Disc Title

(Fig.3)
[19] Display
[20] Power ON/OFF /EDIT

(Fig.4)
[21] Disc Repeat
[22] Title List
[23] Manual Mode
[24] ITS (Instant Track Selector)
[25] One-Track Repeat
[26] Random Play
[27] Track Number
[28] Disc Number

1. Switch the radio on and tune to Modulating Frequencies.
- The initial value is 89.1 MHz.
- If you radio has preset tuning, you can preset the frequency of the selected channel.
- If your radio does not have muting, there may be some noise before power switch of control unit is ON. If this happens, turn down the volume of the radio.

2. Press button [11] or [20] to switch on and start the player.
Disc Number [28], and Track Number [27] will light.
- If you turn the system power on when there is no maganize in the player, "NO MAG" (no maganize) flashes on the display for about 5 seconds, then the power goes off. If this happens, load a magazine, and turn the system power on again.
- If there are no discs in the magazine in the player, or if all the discs have been loaded in the magazine with their label sides facing up, an error appears on the display, and the system does not start. If this happens, eject the magazine and check whether there are any discs in it.
- If you take the magazine out of the player while a CD is playing, "NO MAG"(no magazine) appears on the display, then the power goes off.
- If the car radio connected to this system has a stereo indicator, the indicator will always be it, even if the music from the CD player is mono.
- It takes about 30 seconds from setting the magazine in the CD player till the start of CD playback. ("READY" appears on the display.) This does not indicate a problem; it is just for verifying there a disc in the magazine.

3. Set the volume, balance, bass, and treble to the desired level using the car radio.

4. To stop disc play, press button [11] or [20].
- If you want to listen to the radio or a cassette after stopping the player, turn down the volume of the radio and stop the player.

Playing Compact Discs (CDX-FM63)

Parts Identification

(Fig.6)
[11] Power ON/OFF /Modulator setting mode
[12] Mode/Pause
[13] Disc Number Search
[14] Track Search/Fast Forward, Reverse

(Fig.7)
[15] Disc Number
[16] Track Number
[17] Pause
[18] Random Play
[19] Music Repeat
[20] Disc Repeat

1. Switch the radio on and tune to Modulating Frequencies
- The initial value is 89.1 MHz.
- If you radio has preset tuning, you can preset the frequency of the selected channel.
- If your radio does not have muting, there may be some noise before power switch of control unit is ON. If this happens, turn down the volume of the radio.

2. Press button [11] to switch on and start the player.
Disc Number [15], and Track Number [16] will light.
- If you turn the system power on when there is no maganize in the player, "NM" (no maganize) flashes on the display for about five seconds, then the power goes off. If this happens, load a magazine, and turn the system power on again.
- If there are no discs in the magazine in the player, or if all the discs have been loaded in the magazine with their label sides facing up, an error appears on the display, and the system does not start. If this happens, eject the magazine and check whether there are any discs in it.
- If you take the magazine out of the player while a CD is playing, "NM"(no magazine) appears on the display, then the power goes off.
- If the car radio connected to this system has a stereo indicator, the indicator will always be it, even if the music from the CD player is mono.
- It takes about 30 seconds from setting the magazine in the CD player till the start of CD playback. This does not indicate a problem; it is just for verifying there a disc in the magazine.

3. Set the volume, balance, bass, and treble to the desired level using the car radio.

4. To stop disc play, press button [11].
- If you want to listen to the radio or a cassette after stopping the player, turn down the volume of the radio and stop the player.

3. DISASSEMBLY

● **Removing the Case**

1. Remove the five screws.
2. Remove the upper case and lower case.

● **Removing the Grille Assy**

1. Press the four tabs indicated by arrows and then pull out the grille assy.

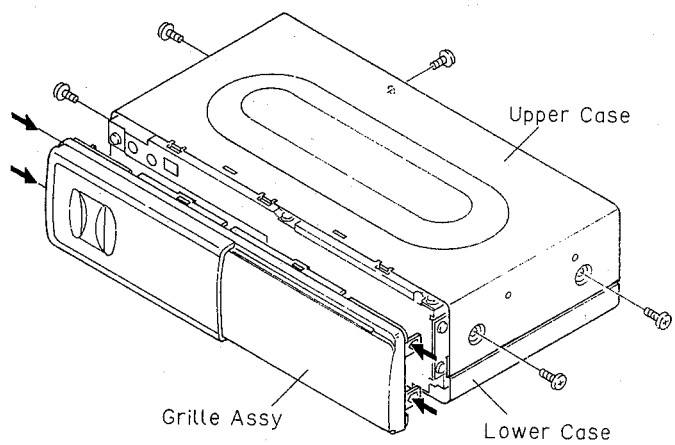


Fig.8

● **Removing the Extension P.C.Board**

1. Remove the one screw.
2. Unbend the tab A until straight.
3. Remove the extension p.c.board.

● **Removing the Main Unit**

1. Remove the one screw.
2. Unbend the tab B until straight.
3. Remove the main unit.

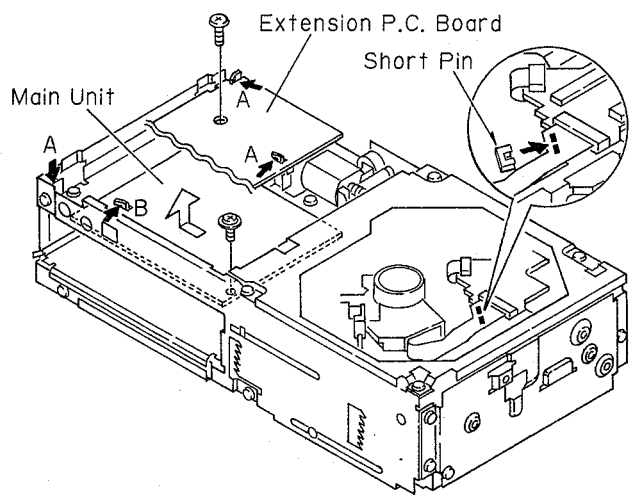


Fig.9

Before disconnecting the connector(PU unit connector), attach a short pin as illustrated.

4. ADJUSTMENT

4.1 CD ADJUSTMENT

1)Precautions

· This unit uses a single power supply (+5V) for the regulator. The signal reference potential, therefore, is connected to REFO(approx. 2.5V) instead of GND.
If REFO and GND are connected to each other by mistake during adjustments,not only will it be impossible to measure the potential correctly,but the servo will malfunction and a severe shock will be applied to the pick-up. To avoid this,take special note of the following.
Do not connect the negative probe of the measuring equipment to REFO and GND together. It is especially important not to connect the channel 1 negative probe of the oscilloscope to REFO with the channel 2 negative probe connected to GND.
Since the frame of the measuring instrument is usually at the same potential as the negative probe,change the frame of the measuring instrument to floating status.
If by accident REFO comes in contact with GND,immediately switch the regulator or power OFF.

· Always make sure the regulator is OFF when connecting and disconnecting the various filters and wiring required for measurements.

· Before proceeding to further adjustments and measurements after switching regulator ON,let the player run for about one minute to allow the circuits to stabilize.

· Since the protective systems in the unit's software are rendered inoperative in test mode,be very careful to avoid mechanical and /or electrical shocks to the system when making adjustment.

2) Test mode

Test mode is mainly used adjustment of CD multi-player .

• Switching to test mode

While pressing the POWER key of display unit, press the RESET key of CD multi-player.

• Canceling test mode

press the RESET key of CD multi-player.

· Disc detection during loading and eject operations is performed by means of a photo transistor in this unit.Consequently,if the inside of the unit is exposed to a strong light source when the outer casing is removed for repairs or adjustment,the following malfunctions may occur.
*During PLAY, even if the eject button is pressed,the disc will not be ejected and the unit will remain in the PLAY mode.
*The unit will not load a disc.
When the unit malfunctions this way,either re-position the light source,move the unit or cover the photo transistor.

· When loading and unloading discs during adjustment procedures,always wait for the disc to be properly clamped or ejected before pressing another key. Otherwise, there is a risk of the actuator being destroyed.

· Turn power off when pressing the button ◁ or the button ▷ key for focus search in the test mode. (Or else lens may stick and the actuator may be damaged.)

· SINGLE/10TRK/32TRK will continue to operate even after the key is released.
Tracking is closed the moment C-MOVE/100TRK is released.

· JUMP MODE resets to SINGLE as soon as power is switched off.

● Flow Chart(CDX-FM67)

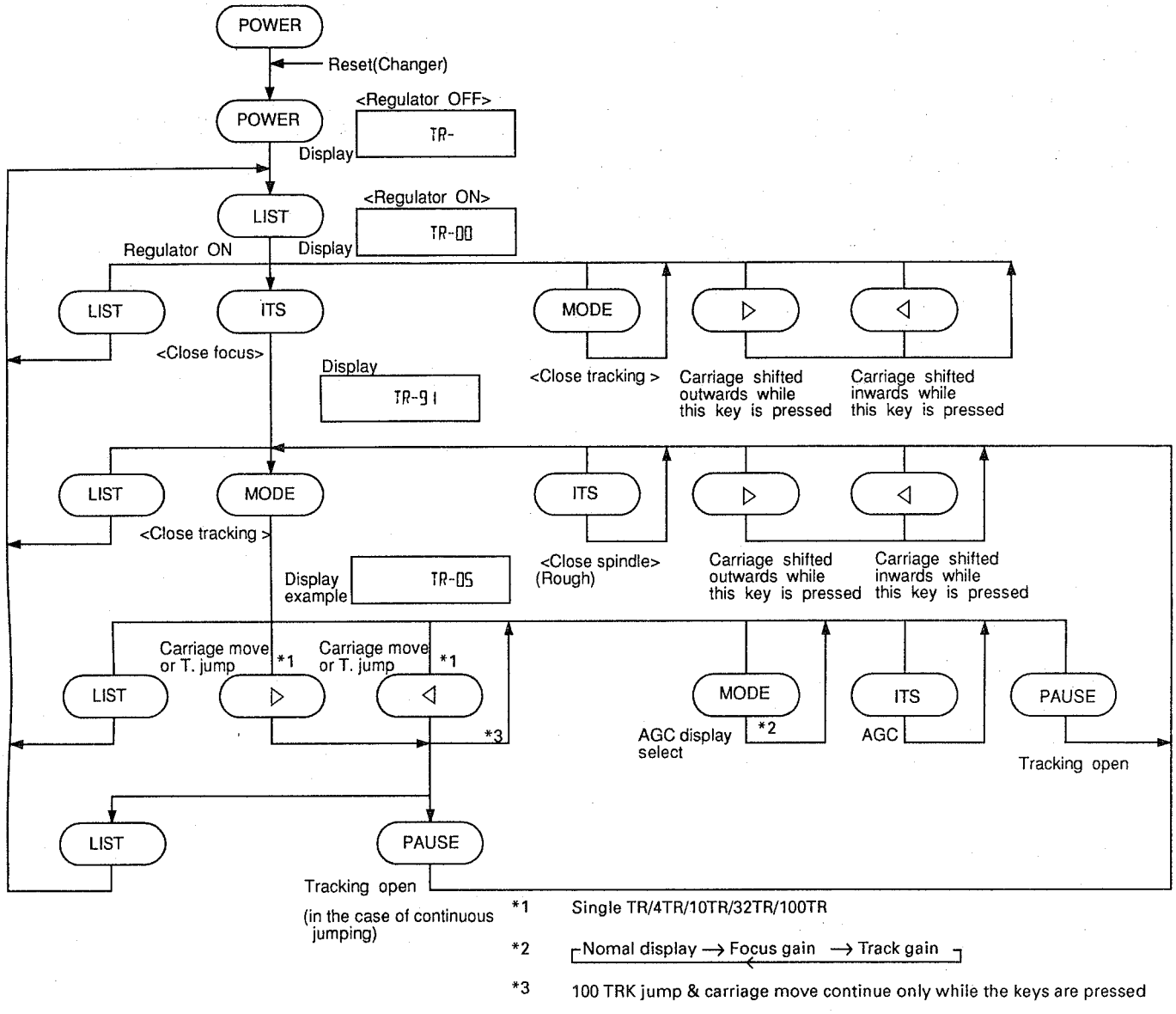
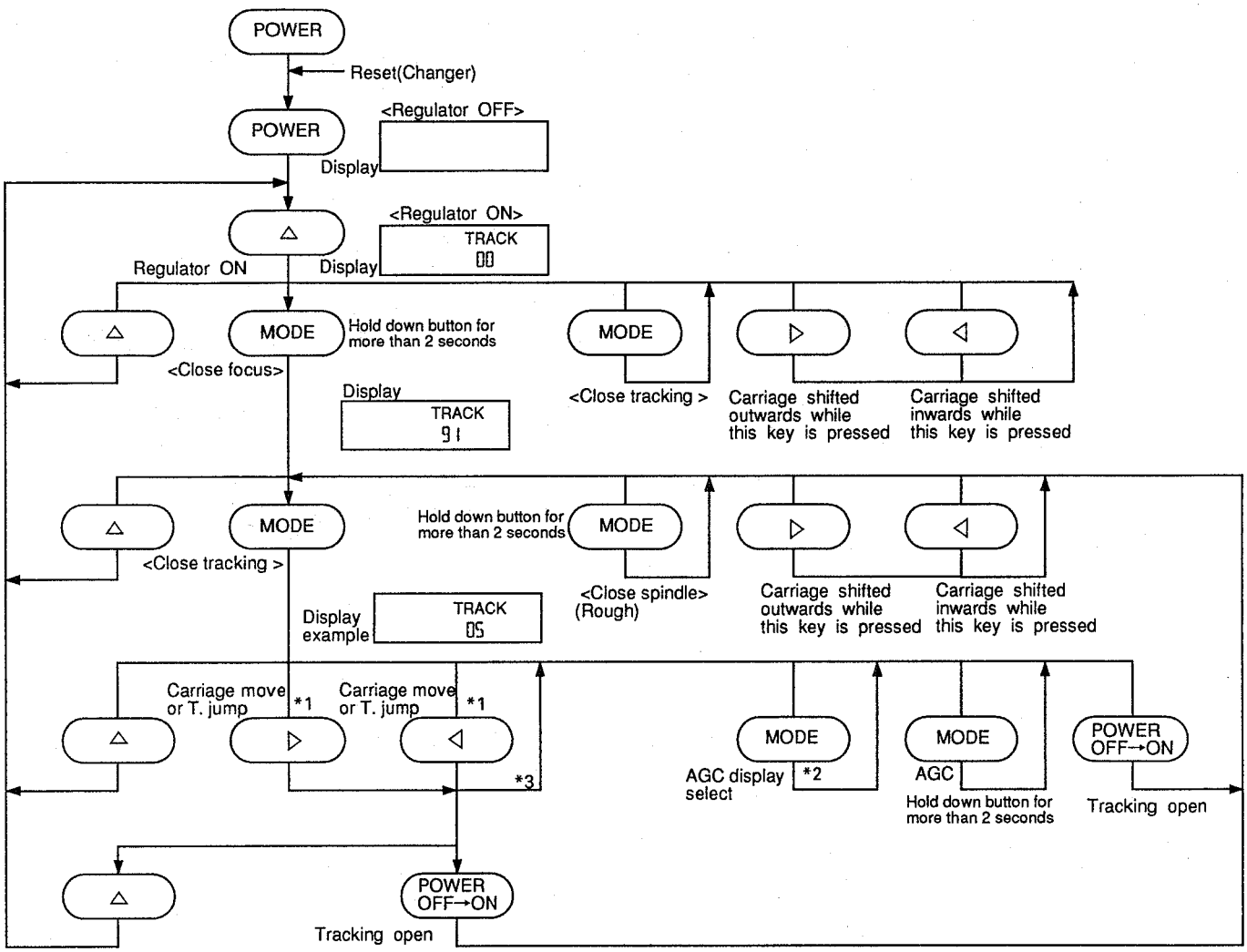


Fig.10

● Measuring Equipment and Jigs

Adjustment	Measuring equipment & jigs
1 Tracking Error Offset Adjustment 1	DC V Meter
2 Grating Check / Adjustment 1	Oscilloscope, ABEX TCD-784 (or SONY TYPE 4), Two L.P.F., Clock Driver
3 Grating Adjustment 2	Oscilloscope, Grating Adjustment Filter (B.P.F.), mV Meter, ABEX TCD-784 (or SONY TYPE 4), Two L.P.F., Clock Driver
4 Tracking Balance Adjustment 1	Oscilloscope, Low-pass Filter, ABEX TCD-784 (or SONY TYPE 4)
5 Focus Bias Adjustment	Oscilloscope, ABEX TCD-784 (or SONY TYPE 4)
6 RFO Offset Adjustment	Oscilloscope, ABEX TCD-784 (or SONY TYPE 4)
7 Tracking Error Offset Adjustment 2	DC V Meter
8 Tracking Balance Adjustment 2	Oscilloscope, Low-pass Filter, ABEX TCD-784 (or SONY TYPE 4)

● Flow Chart(CDX-FM63)



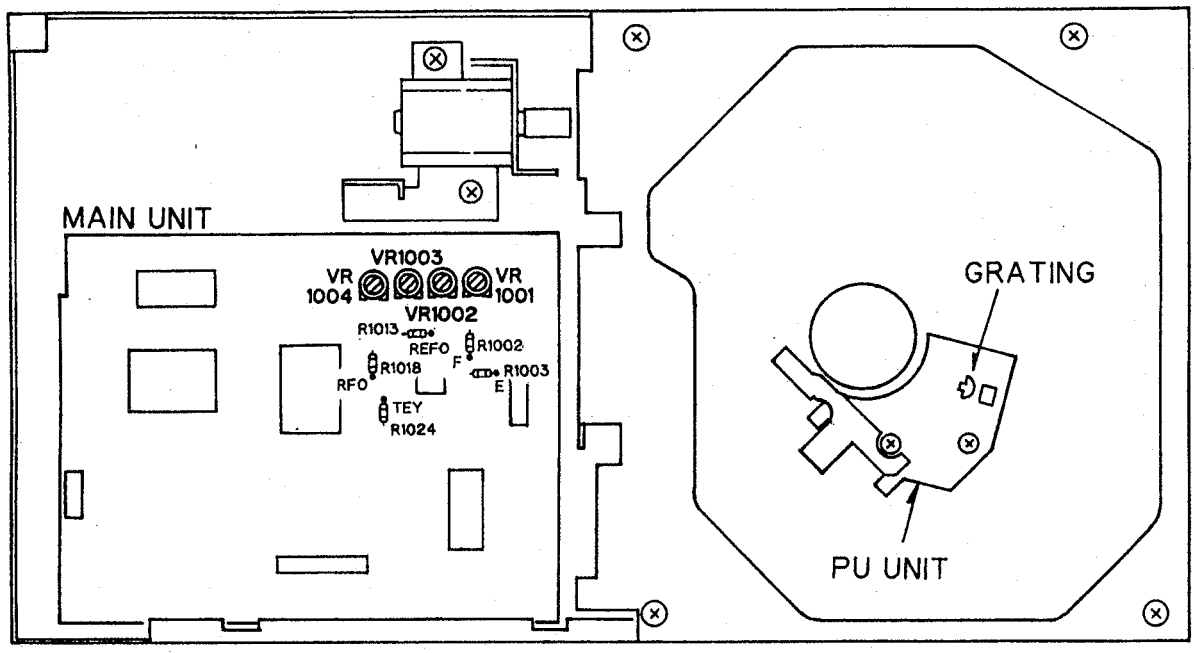
*1 Single TR/4TR/10TR/32TR/100TR

*2 Nomal display → Focus gain → Track gain

*3 100 TRK jump & carriage move continue only while the keys are pressed

Fig.11

● Adjustment Point and Test Point



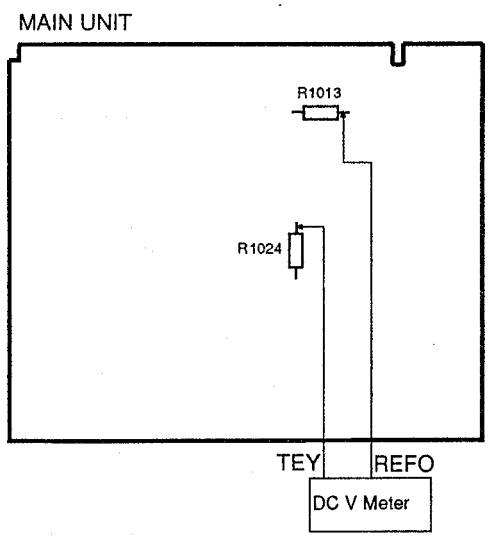
VR1001	TRACKING ERROR OFFSET
VR1002	TRACKING BALANCE
VR1003	FOCUS ERROR BIAS
VR1004	RFO OFFSET

Fig.12

1 Tracking Error Offset Adjustment 1

- **Purpose :**
  To adjust the offset of the tracking pre-amp to zero.
- **Symptoms of Mal-adjustment :**
  Track search NG, Carriage runaway, Poor playability.

Measuring Equipment / Jig	DC V Meter
Measuring Point	TEY
Test Disc , Mode	No disc, TEST MODE
Adjustment Point	VR1001(TE OFFSET VR)



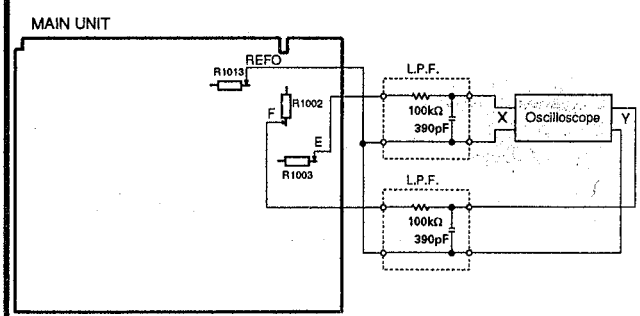
Adjustment Procedure

1. Switch the regulator on.
2. Using VR1001, adjust TEY to 0 ± 25mV w.r.t. REFO.

2 Grating Check / Adjustment 1

- **Purpose :**
  To check that the PU grating is correctly aligned after the PU unit has been replaced.
- **Symptoms of Mal-adjustment :**
  Unable to play disc, track skip during search, search NG.

Measuring Equipment / Jig	Oscilloscope, Clock Driver, Two L.P.F.
Measuring Point	E, F
Test Disc , Mode	ABEX TCD-784 (or SONY TYPE 4), TEST MODE
Adjustment Point	Grating hole

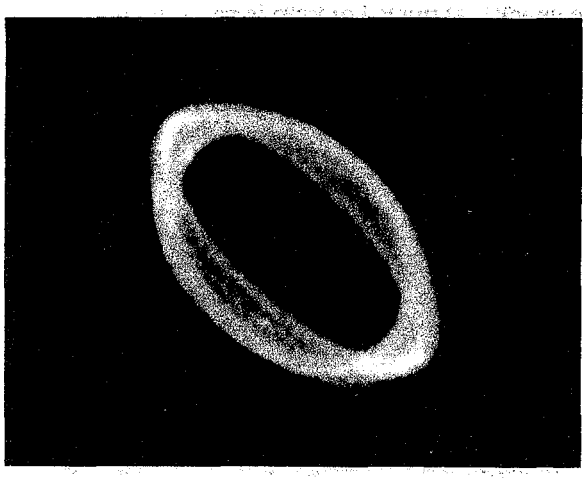


Adjustment Procedure

1. Load disc and switch regulator on.
2. Position the PU in the center of the disc using the ◁ & ▷ keys.
3. Press key ＊1 to close focus and once more to close spindle.
4. Refering to the photographs given check that the grating is within ±45°. If not, it should be possible to make a fine adjustment to the grating by slowly tuning the grating screw. If, however during the adjustment the lissajous figure is seen to "FLIP" then the null point must be found and the adjustment made from there(see next section).

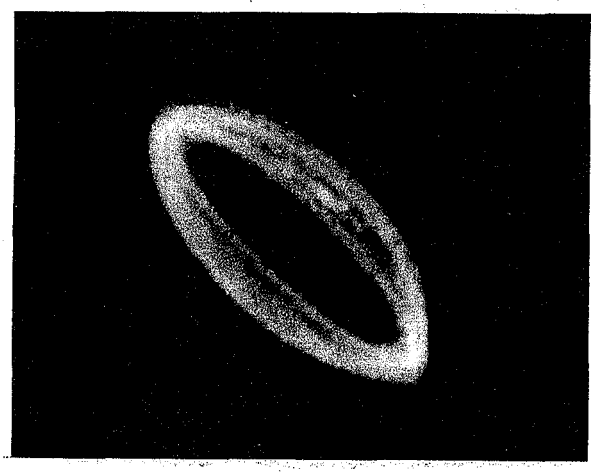
＊1 : ITS(CDX-FM67),MODE(CDX-FM63)

Lissajous figure (AC input)
Horizontal axis E 10mV/div.
Vertical axis F 10mV/div.



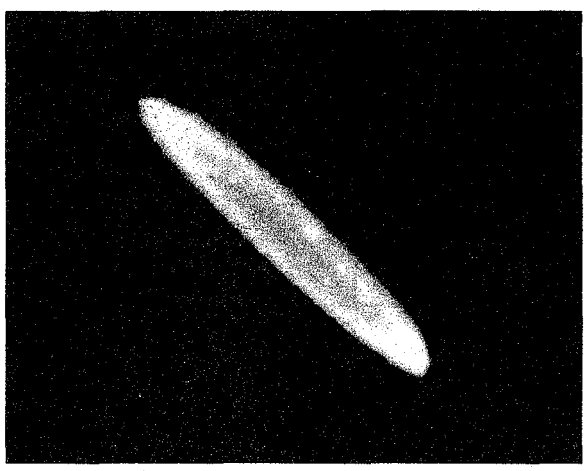
60°=NG

Waveform 1



45°=OK
(Limit)

Waveform 2



0°=BEST
(Doesn't become a single line due to eccentricity)

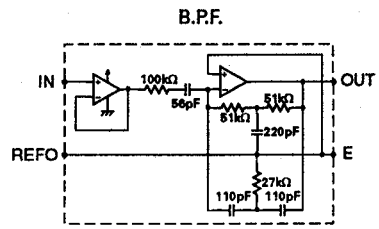
Waveform 3

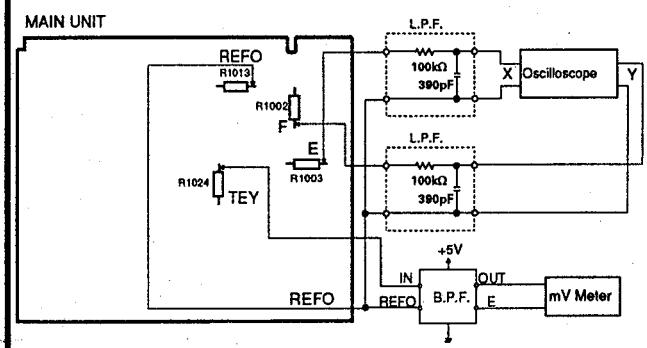
3 Grating Adjustment 2

·Purpose :
This needs to be done if the previous adjustment was unsuccessful.

·Symptoms of Mal-adjustment :
Unable to play disc, track skipping, track search NG.

·Measuring Equipment / Jig	·Oscilloscope, Grating Adjustment filter (B.P.F.), mV Meter, Two L.P.F., Clock Driver
·Measuring Point	·TEY, E, F
·Test Disc , Mode	·ABEX TCD-784 (or SONY TYPE 4), TEST MODE
·Adjustment Point	·Grating hole





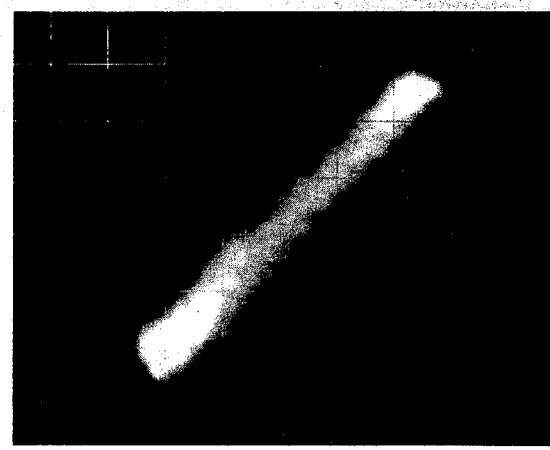
Adjustment Procedure

1. Load disc and switch regulator on.
2. Position the PU unit in the center of the disc using the ◁ & ▷ keys.
3. Press key ＊1 to close focus and press once more to close spindle.
4. While monitoring the output of the B.P.F. connected to TEY, slowly turn the grating screw. The output voltage should pass through many minimums; search for the minimum which is clearly smaller than the rest - this is the "null point", where the E & F sub-beams are lined up with the tracks on the disc.
5. From this null point, turn the grating screw clockwise (as seen from the underside of the PU unit) until the lissajous waveform is a single line (or close as possible) as shown in the photograph.

＊1 : ITS(CDX-FM67),MODE(CDX-FM63)

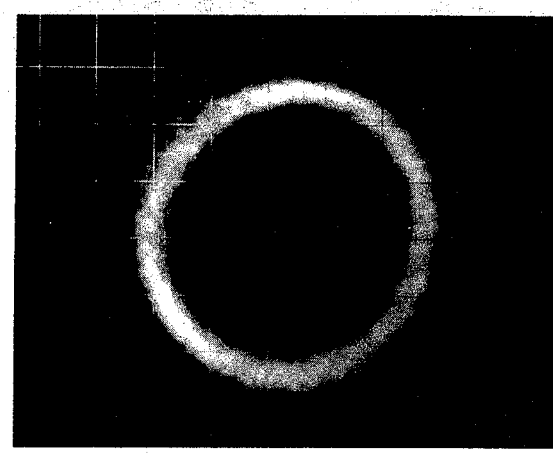
Lissajous figure (AC input)
Horizontal axis E 10mV/div.
Vertical axis F 10mV/div.

Null Point=180°



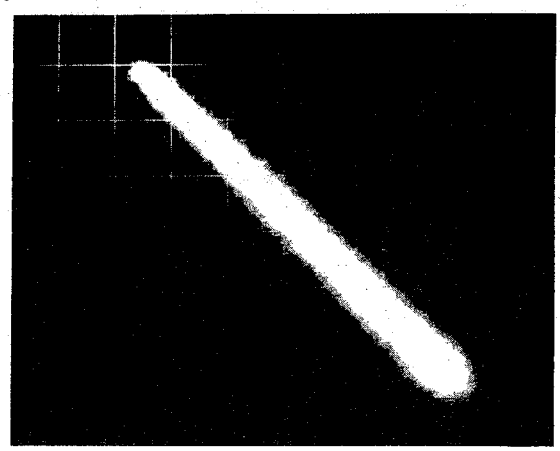
Waveform 4

"Rough" adjustment=90°



Waveform 5

Final adjustment=0°



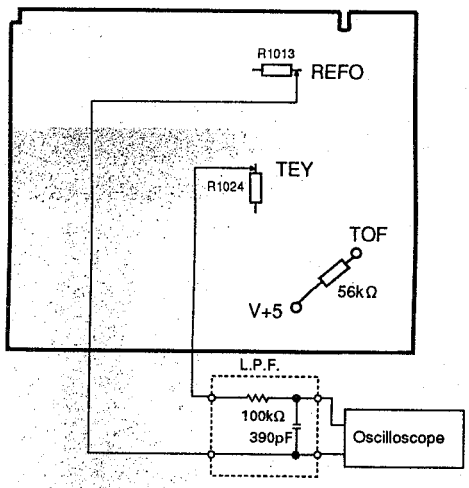
Waveform 6

4 Tracking Balance Adjustment 1

·Purpose :
To equate the sensitivity of the F channel to that of the E channel.

·Symptoms of Mal-adjustment :
Track search NG, Poor playability carriage runaway.

·Measuring Equipment / Jig	·Oscilloscope, L.P.F.
·Measuring Point	·TEY
·Test Disc , Mode	·ABEX TCD-784 (or SONY TYPE 4), TEST MODE
·Adjustment Point	·VR1002 (T.BAL VR)



Pull up the TOF terminal to the V+5 terminal with a 56kΩ resistor. (This is in order to cancel lens offset in the tracking direction.)

Adjustment Procedure

1. Load disc and switch the regulator on.
2. Position the PU unit in the center of the disc using the ◁ & ▷ keys.
3. Close focus by pressing key ＊1.
4. Observing the TEY waveform on the oscilloscope, adjust VR1002 until the positive and negative halves have the same amplitude (see waveform 7–9).

Check

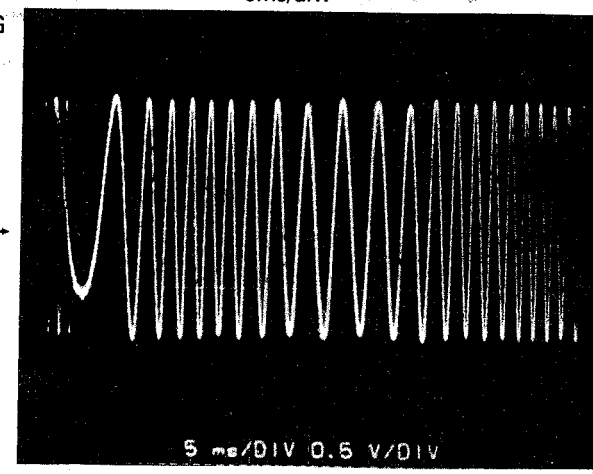
After adjustment the TEY waveform should have an amplitude of 1.5±0.65 Vpp (ABEX TCD-784 or SONY TYPE 4)
(Providing focus bias is OK)

＊1 : ITS(CDX-FM67),MODE(CDX-FM63)

DC Mode
0.5V/div.
5ms/div.

+5% NG

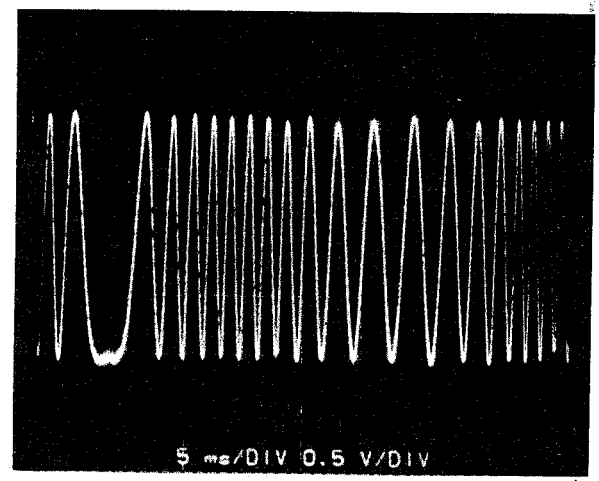
REFO →



Waveform 7

±0% OK

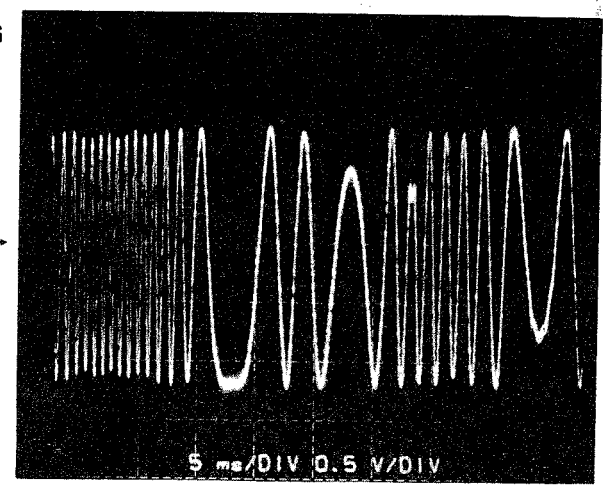
REFO →



Waveform 8

−5% NG

REFO →

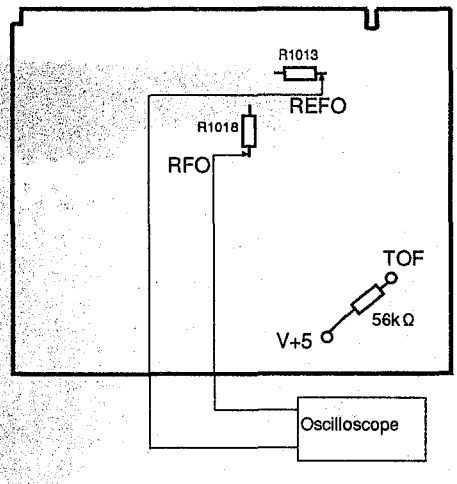


Waveform 9

5 Focus Bias Adjustment

Purpose :
To adjust the focus servo reference so that the RF waveform is an optimum.
Symptoms of Mal-adjustment :
Difficulty in closing focus, poor playability.

Measuring Equipment / Jig	·Oscilloscope
Measuring Point	·RFO
Test Disc , Mode	·ABEX TCD-784 (or SONY TYPE 4), NORMAL MODE
Adjustment Point	·VR1003 (FE BIAS VR)

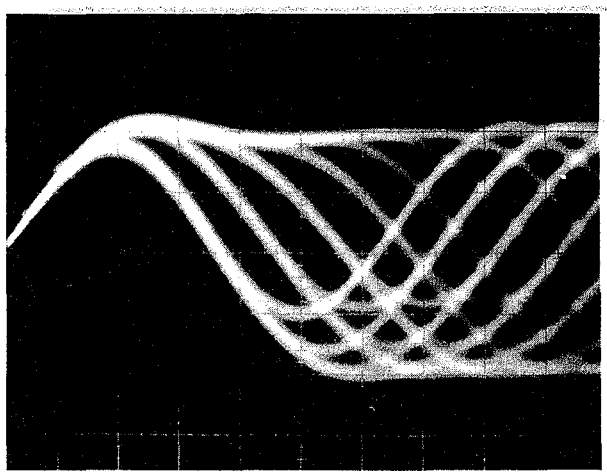


Pull up the TOF terminal to the V+5 terminal with a 56kΩ resistor. (This is in order to cancel lens offset in the tracking direction.)

Adjustment Procedure
1. Play track number 18.
2. Adjust VR1003 so that the RFO waveform amplitude is a maximum and eye pattern is optimum.

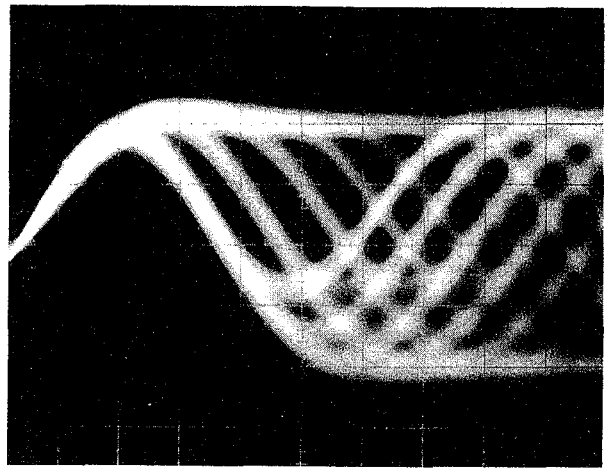
Check
After adjustment the RFO waveform should have an amplitude of 1.7±0.65 Vpp (ABEX TCD-784 or SONY TYPE 4)

3. Remove the pull-up resistor after completing adjustment.



OK

Waveform 10



NG

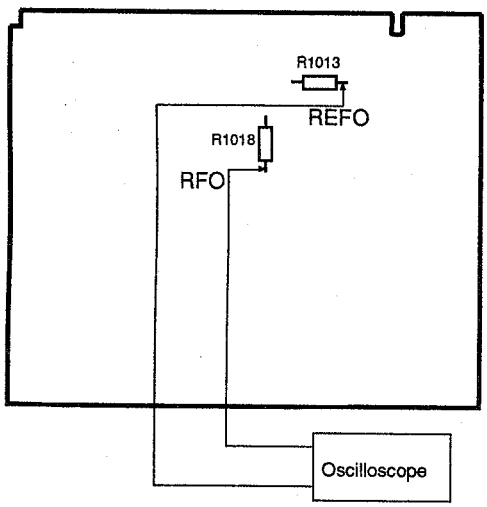
AC Mode Before adjustment Waveform 11

6 RFO Offset Adjustment

- **Purpose**
  To adjust the RFO waveform offset to an optimum.
- **Symptoms of Mal-adjustment**
  Difficulty in closing focus, poor playability.

Measuring Equipment / Jig	Oscilloscope
Measuring Point	RFO
Test Disc , Mode	ABEX TCD-784 (or SONY TYPE 4), NORMAL MODE
Adjustment Point	VR1004 (RFO OFFSET VR)

MAIN UNIT

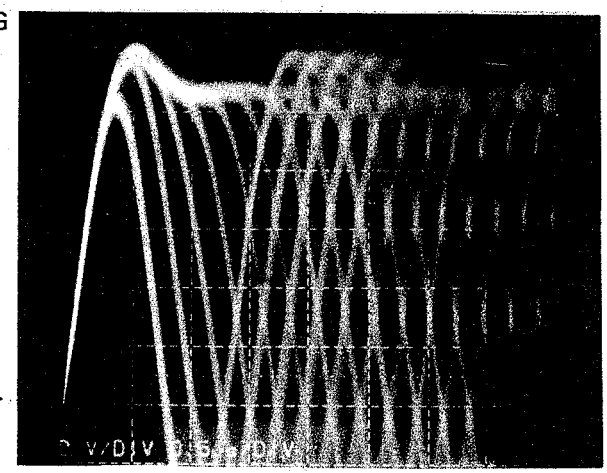


Adjustment Procedure

1. Make sure the TOF terminal's pull-up resistor has been disconnected.
2. Play track number 18.
3. Adjust VR1004 so that the peak value of the upper envelope of the RFO waveform is at +1.1VDC w.r.t. REFO (See waveform 12–14).

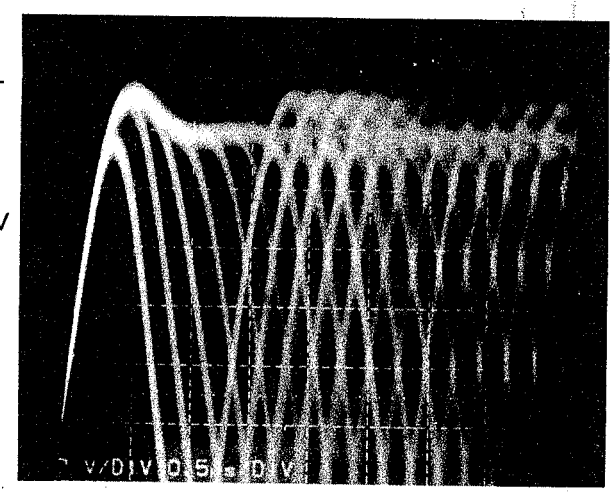
DC Mode
0.2V/div.
0.5µs/div.

+100mV NG



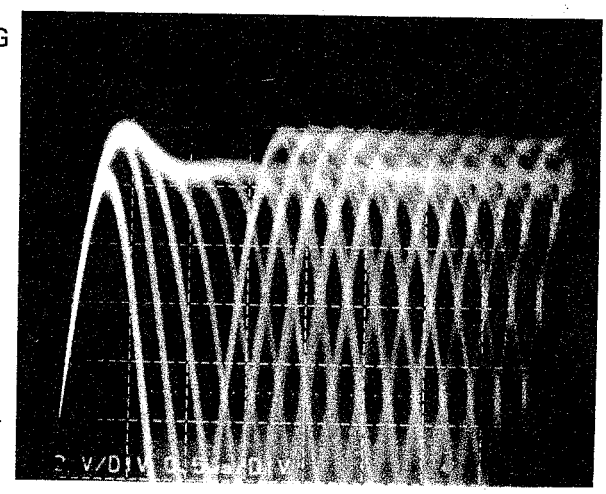
Waveform 12

OK



Waveform 13

−100mV NG

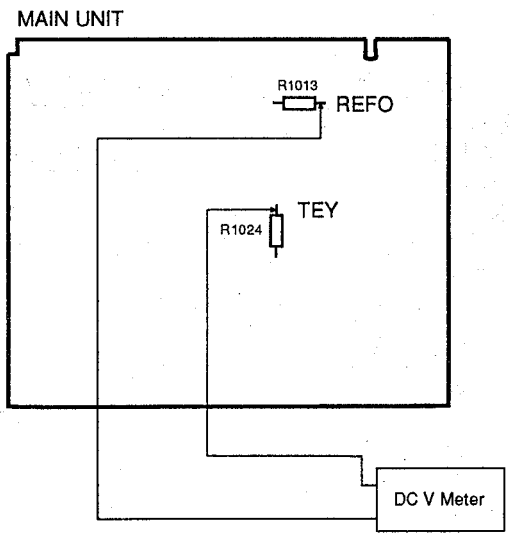


Waveform 14

7 Tracking Error Offset Adjustment 2

- **Purpose :**
  To check the offset of the tracking pre-amp is zero and adjust if necessary.
- **Symptoms of Mal-adjustment :**
  Track search NG, Carriage runaway, Poor playability.

Measuring Equipment / Jig	DC V Meter
Measuring Point	TEY
Test Disc , Mode	No disc, TEST MODE
Adjustment Point	VR1001(TE OFFSET VR)



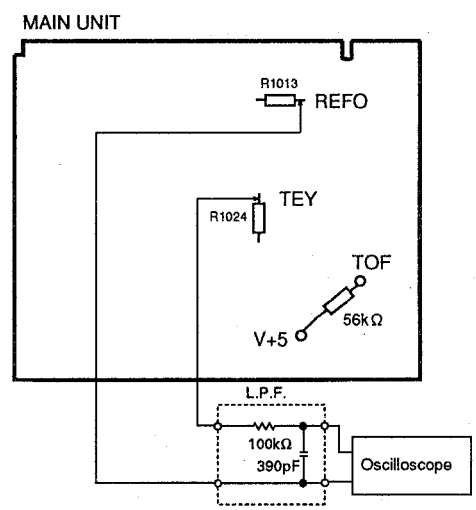
Adjustment Procedure

1. Switch the regulator on.
2. Using VR1001, adjust TEY to 0 ± 25mV w.r.t. REFO.

8 Tracking Balance Adjustment 2

- **Purpose :**
  To equate the sensitivity of the F channel to that of the E channel.This needs only be done if the TE OFF-SET volume was re-adjusted in the previous step.
- **Symptoms of Mal-adjustment:**
  Track search NG,Poor playability, carriage runaway.

Measuring Equipment / Jig	Oscilloscope, L.P.F.
Measuring Point	TEY
Test Disc , Mode	ABEX TCD-784 (or SONY TYPE 4), TEST MODE
Adjustment Point	VR1002 (T.BAL VR)



Pull up the TOF terminal to the V+5 terminal with a 56kΩ resistor. (This is in order to cancel lens offset in the tracking direction.)

Adjustment Procedure

1. Load disc and switch the regulator on.
2. Position the PU unit in the center of the disc using the ◁ & ▷ keys.
3. Close focus by pressing key ＊1.
4. Observing the TEY waveform on the oscilloscope, adjust VR1002 until the positive and negative halves have the same amplitude (See waveform 7–9).

Check

After adjustment the TEY waveform should have an amplitude of 1.5±0.65 Vpp (ABEX TCD-784 or SONY TYPE 4)

5. Remove the pull-up resistor after completing adjustment.

＊1 : ITS(CDX-FM67),MODE(CDX-FM63)

4.2 MODULATOR ADJUSTMENT

● Connection Diagram

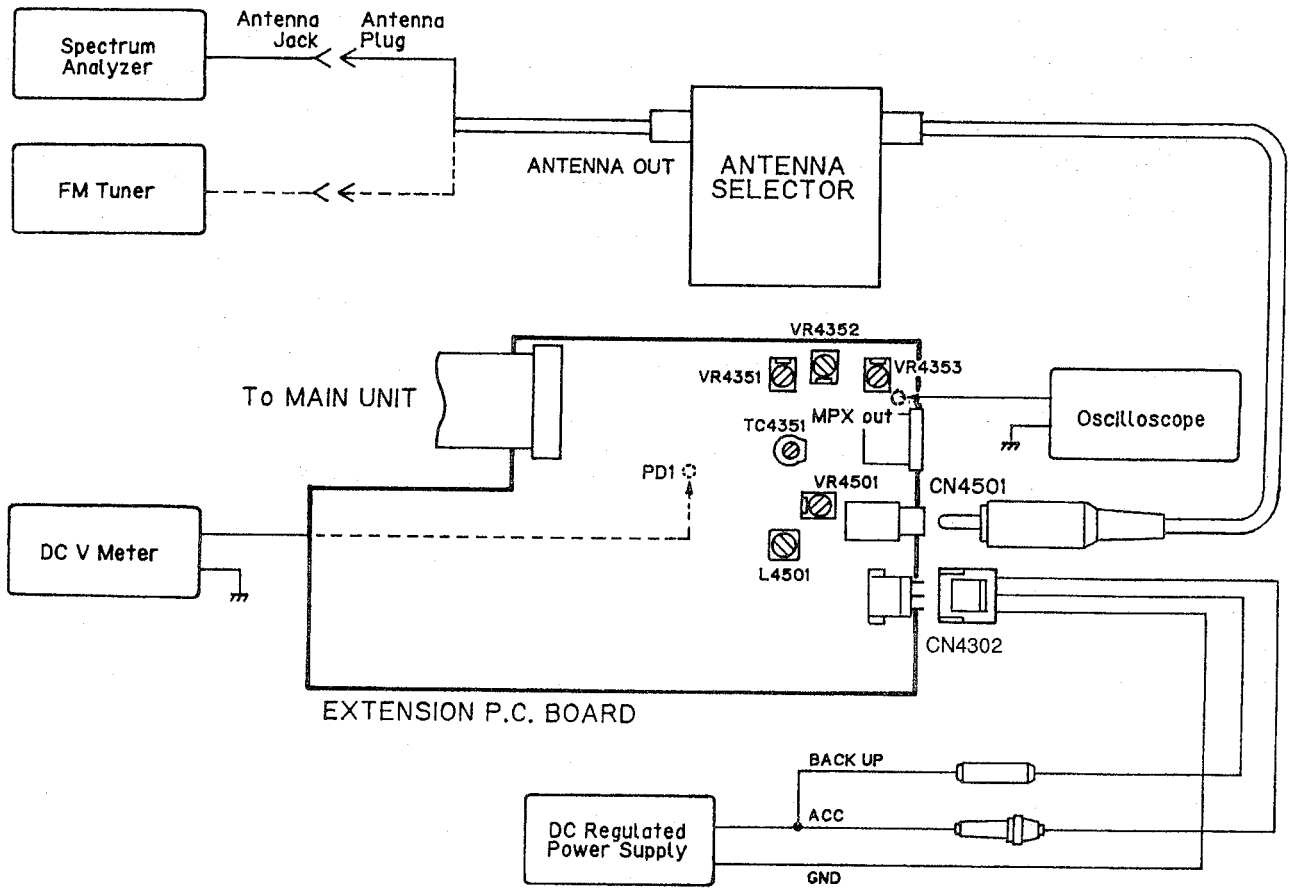


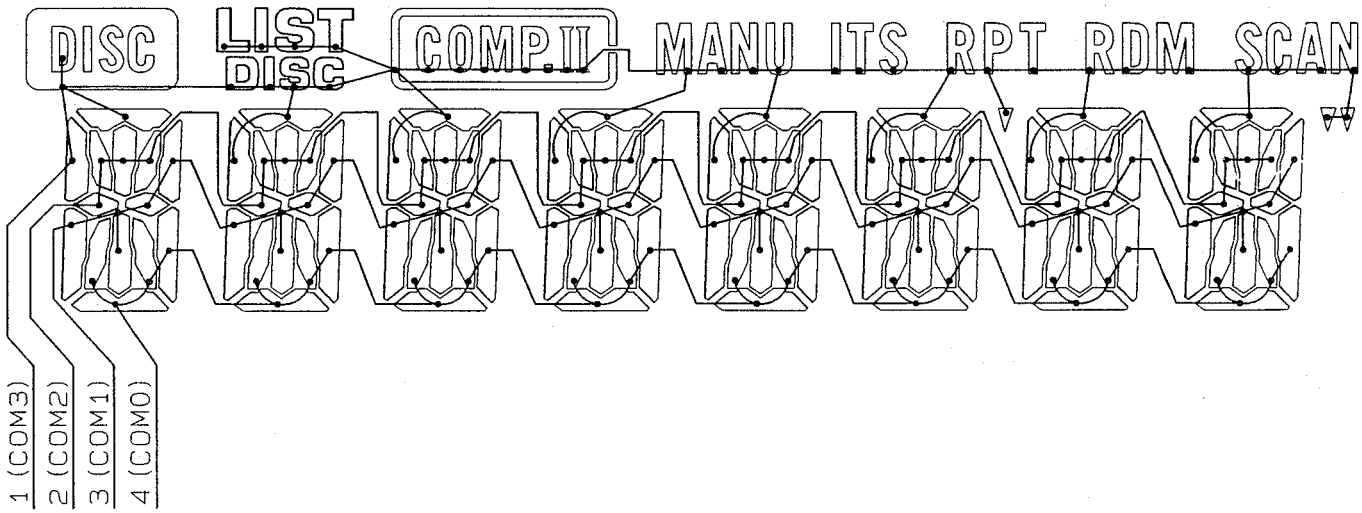
Fig.13

● Adjustment

	CD Output	Adjusting Point	Adjustment Method (Switch Position)
Tuning Voltage Adjustment	No signal	L4501	DC V Meter: 3.0V±0.1V
Balance Adjustment	No signal	VR4351	Oscilloscope: 38kHz signal becomes minimum
Pilot Modulation Adjustment	No signal	VR4352	Spectrum Analyzer: 7.5±1.5kHz
Modulation Adjustment	250Hz 0dB	VR4353	Spectrum Analyzer: 135±10kHz
RF Level Adjustment	No signal	VR4501	Spectrum Analyzer: 73dBμV±5dB
Separation Adjustment	1kHz	TC4351	Signal leakage to the R-channel(cross-talk) becomes minimum.

● **LCD(CAW1273)(CDX-FM67)**

COMMON



SEGMENT

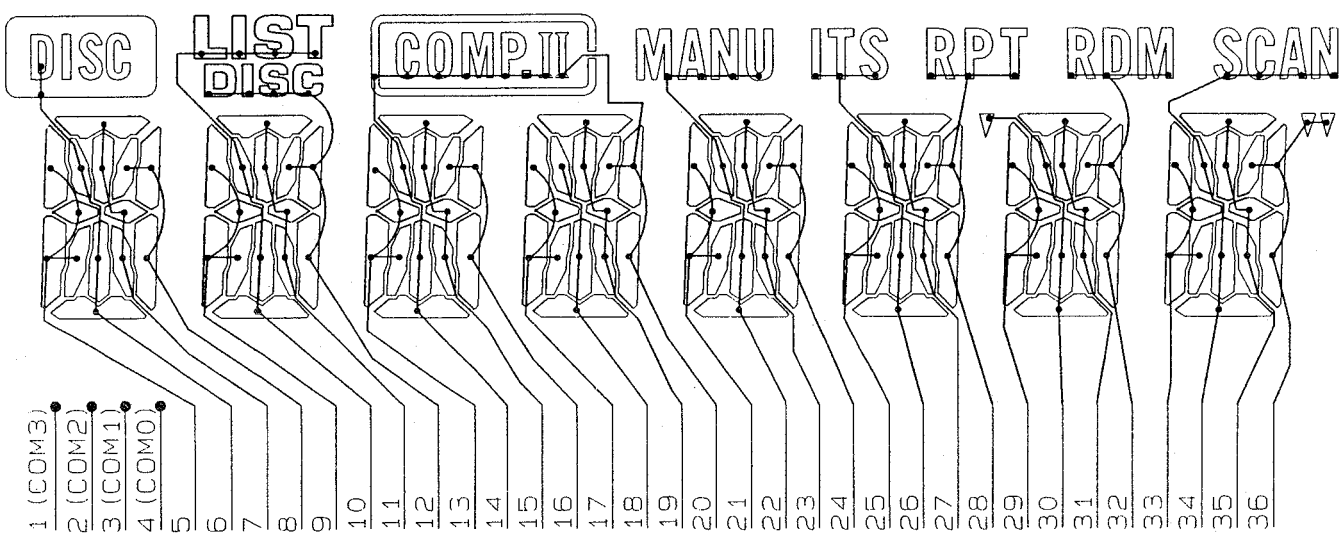
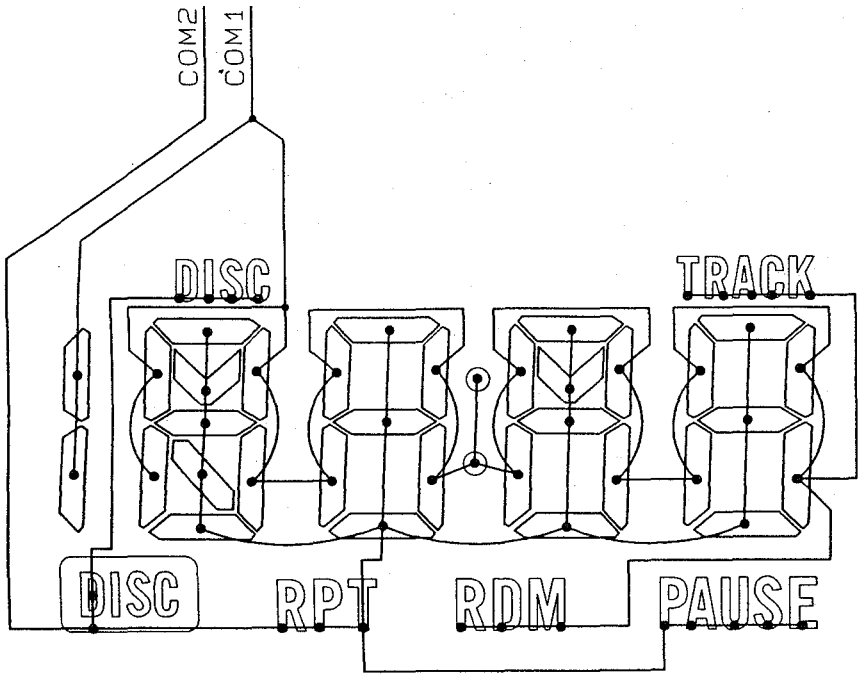


Fig.14

● **LCD(CAW1274)(CDX-FM63)**

COMMON



SEGMENT

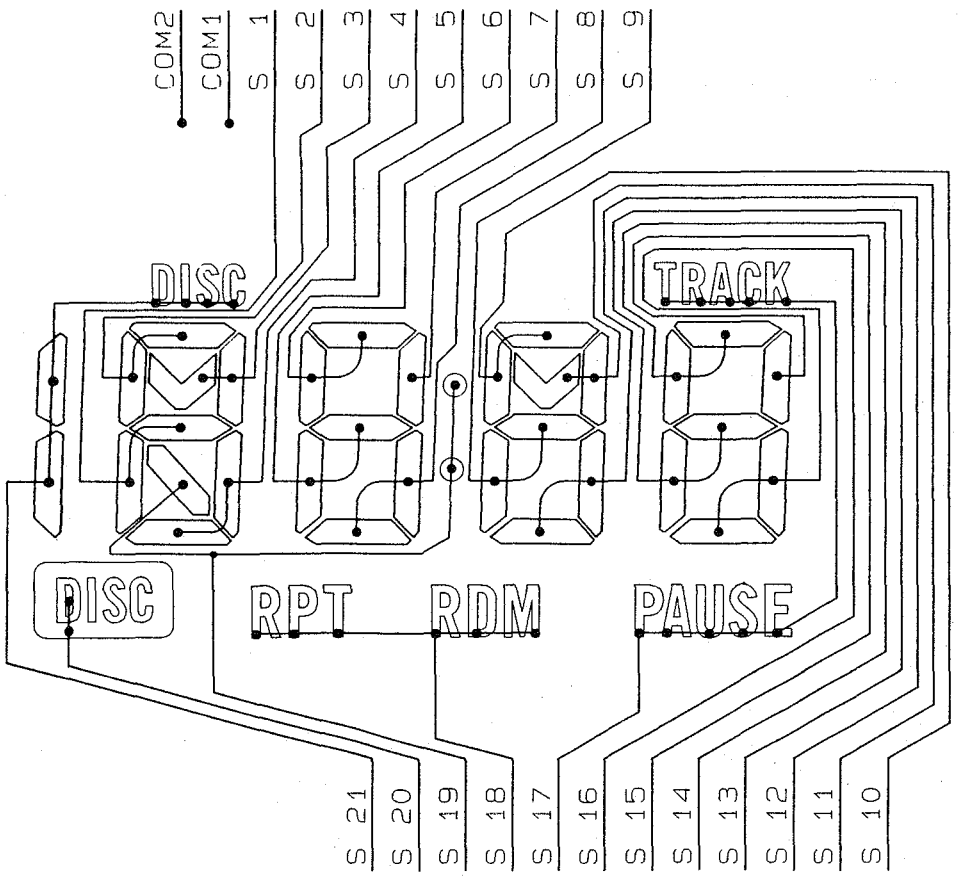


Fig.15

● ICs

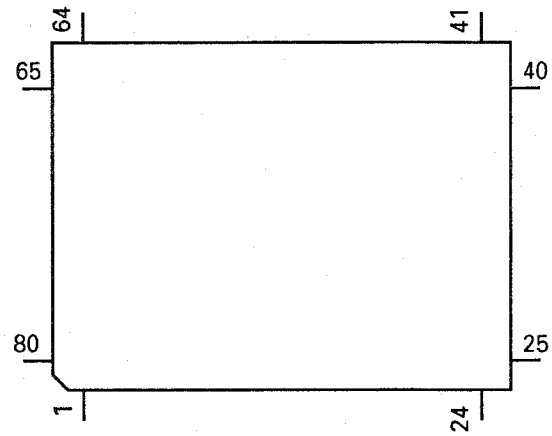
● Pin Functions (PD5291A)

Pin No.	Pin Name	I/O	I/O Format	Function and Operation
1	$\overline{TIN}$	I	C	Tray position input
2	TEMP			Temperature detector
3	VDIN	I		Power supply short sensor input
4	$\overline{TOUT}$	I		Disc sensor timing input
5	PLDT	O	NM	PLL data output
6	PLCK	O	NM	PLL clock output
7	PLCS	O	NM	PLL chip select output
8	AO	O	NM	Control signal distinguishing from LSI
9	XSCK	I/O	NM	LSI clock input/output
10	XSO	O	NM	LSI data output
11	XSI	I	C	LSI data input
12	$\overline{STB}$	O	C	LSI strobe output
13	$\overline{RST}$	O	C	LSI reset output
14	DCE	O	C	Chip enable output
15	DACRST	O	C	D/A converter reset output
16	$\overline{ASENS}$	I		ACC power sense input
17	$\overline{BSENS}$	I		Back up power sense input
18	DMUTE	O	C	Mute output
19	$\overline{DRST}$	O	C	Reset output
20	SYSPW	O	C	System power control
21	DISPPW	O	C	Key · LCD driver power supply control
22	DPDT	O	C	Display data output
23	KYDT	I	C	Key data input
24	$\overline{EJSW}$	I		Eject key switch interrupt input
25	$\overline{MAG}$	I		Magazine lock switch interrupt input
26	CNVSS			GND
27	$\overline{RESET}$	I		Reset
28	POWER	O	C	CD +5V control
29	CONT	O	C	Servo driver power supply control
30	XIN	I		Crystal oscillating element connection pin
31	XOUT	O		Crystal oscillating element connection pin
32	VSS			GND
33-40	D7-D0	I/O	C	External RAM data
41	WE	O	C	External RAM write enable
42	PROT	O	C	External RAM output enable
43	CS	O	C	External RAM chip select
44-56	A12-A0	O	C	External RAM address
57	$\overline{EJP}$	I	C	Reset position switch
58	MOD1	O	C	Modulation level switching output 1
59	MOD2	O	C	Modulation level switching output 2
60	MIRR	I	C	Mirror detector input
61	LOCK	I	C	Spindle lock detector input
62	FOK	I	C	FOK signal input
63	$\overline{HOME}$	I	C	Home position detector input
64	PREN	O	C	Pre-emphasis switching output
65	LOAD	O	C	Mechanism power supply control
66	I3	O	C	Motor driver control output 3
67	I1	O	C	Motor driver control output 1
68	I2	O	C	Motor driver control output 2
69	I4	O	C	Motor driver control output 4
70	$\overline{CDMUTE}$	O	C	CD mute output
71	ADENA	O	C	A/D reference voltage output
72	$\overline{TESTIN}$	I	C	Test program mode input
73	VCC			Back up 5V
74	VREF	I		A/D converter reference voltage input
75	AVSS			A/D GND
76	SIMUKE	I		Destination information input

Pin No.	Pin Name	I/O	I/O Format	Function and Operation
77	$\overline{6}$/12	I	C	6/12 switching input
78	$\overline{\text{DISK}}$	I		Disc detector input
79	$\overline{\text{TSEL}}$	I	C	Tray position detector photo sensor
80	CSEL	I		Compression select

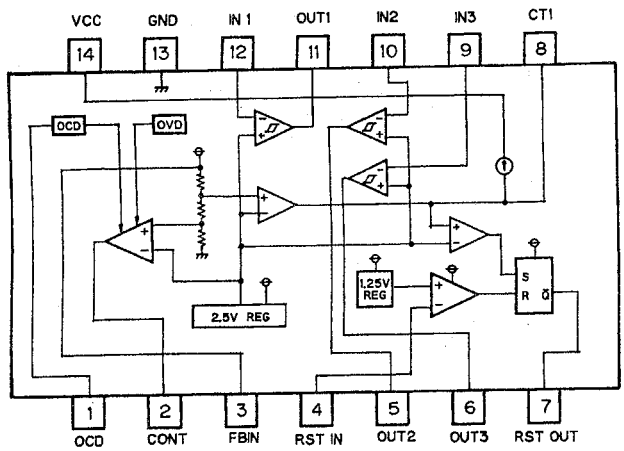
I/O Format	Meaning
C	C MOS
NM	Middle resistivity N channel open drain

*PD5291A(CDX-FM67)

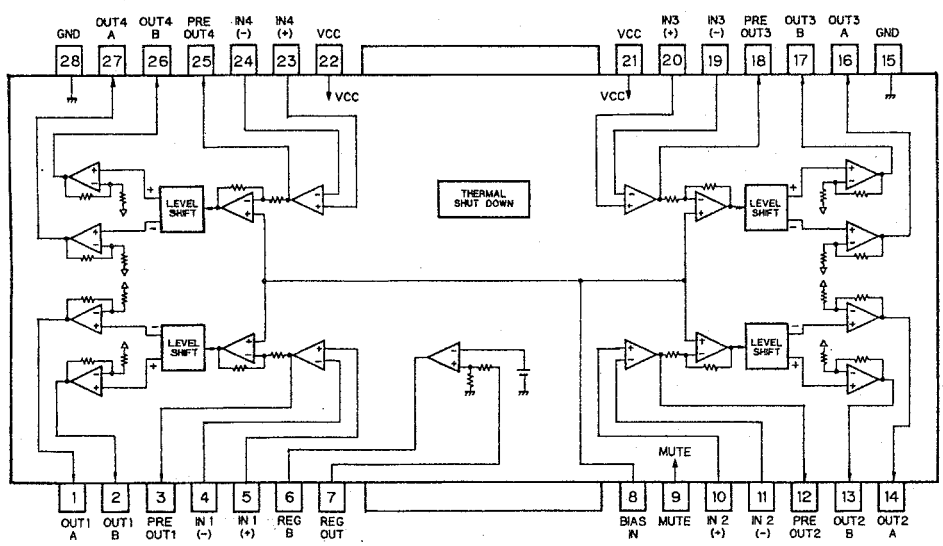


IC's marked by are MOS type.*
Be careful in handing them because they are very liable to be damaged by electrostatic induction.

PAJ002A



XRA6797FP

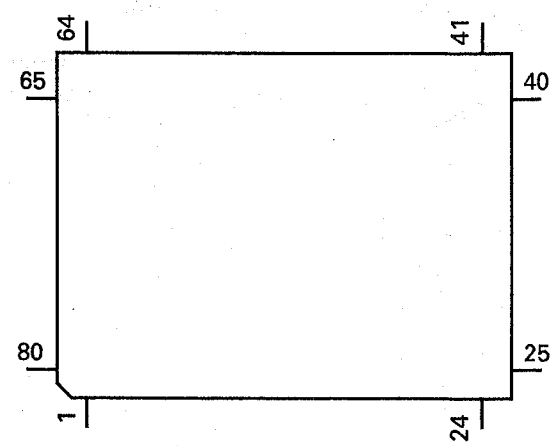


● Pin Functions (PD5290A)

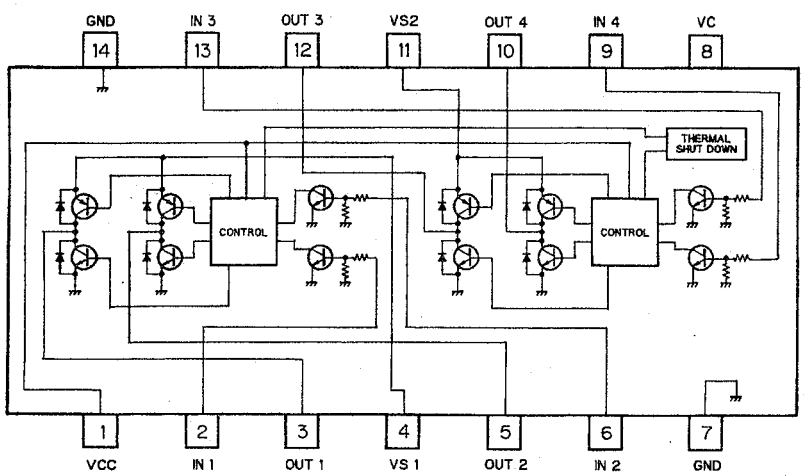
Pin No.	Pin Name	I/O	I/O Format	Function and Operation
1	$\overline{\text{TIN}}$	I	C	Tray position input
2	TEMP			Temperature detector
3	VDIN	I		Power supply short sensor input
4	$\overline{\text{TOUT}}$	I		Disc sensor timing input
5	PLDT	O	NM	PLL data output
6	PLCK	O	NM	PLL clock output
7	PLCS	O	NM	PLL chip select output
8	AO	O	NM	Control signal distinguishing from LSI
9	XSCK	I/O	NM	LSI clock input/output
10	XSO	O	NM	LSI data output
11	XSI	I	C	LSI data input
12	$\overline{\text{STB}}$	O	C	LSI strobe output
13	$\overline{\text{RST}}$	O	C	LSI reset output
14	DCE	O	C	Chip enable output
15	DACRST	O	C	D/A converter reset output
16	$\overline{\text{ASENS}}$	I		ACC power sense input
17	$\overline{\text{BSENS}}$	I		Back up power sense input
18	DMUTE			Not used
19	$\overline{\text{DRST}}$			Not used
20	SYSPW	O	C	System power control
21	DISPPW	O	C	Key · LCD driver power supply control
22	DPDT	O	C	Display data output
23	KYDT	I	C	Key data input
24	$\overline{\text{EJSW}}$	I		Eject key switch interrupt input
25	$\overline{\text{MAG}}$	I		Magazine lock switch interrupt input
26	CNVSS			GND
27	$\overline{\text{RESET}}$	I		Reset
28	POWER	O	C	CD +5V control
29	CONT	O	C	Servo driver power supply control
30	XIN	I		Crystal oscillating element connection pin
31	XOUT	O		Crystal oscillating element connection pin
32	VSS			GND
33-56	NC			Open
57	$\overline{\text{EJP}}$	I	C	Reset position switch
58	MOD1	O	C	Modulation level switching output 1
59	MOD2	O	C	Modulation level switching output 2
60	MIRR	I	C	Mirror detector input
61	LOCK	I	C	Spindle lock detector input
62	FOK	I	C	FOK signal input
63	$\overline{\text{HOME}}$	I	C	Home position detector input
64	$\overline{\text{PREN}}$	O	C	Pre-emphasis switching output
65	LOAD	O	C	Mechanism power supply control
66	I3	O	C	Motor driver control output 3
67	I1	O	C	Motor driver control output 1
68	I2	O	C	Motor driver control output 2
69	I4	O	C	Motor driver control output 4
70	CDMUTE	O	C	CD mute output
71	$\overline{\text{ADENA}}$	O	C	A/D reference voltage output
72	$\overline{\text{TESTIN}}$	I	C	Test program mode input
73	VCC			Back up 5V
74	VREF	I		A/D converter reference voltage input
75	AVSS			A/D GND
76	SIMUKE	I		Destination information input
77	$\overline{6}$/12	I	C	6/12 switching input
78	$\overline{\text{DISK}}$	I		Disc detector input
79	$\overline{\text{TSEL}}$	I	C	Tray position detector photo sensor
80	CSEL	I		Compression select

I/O Format	Meaning
C	C MOS
NM	Middle resistivity N channel open drain

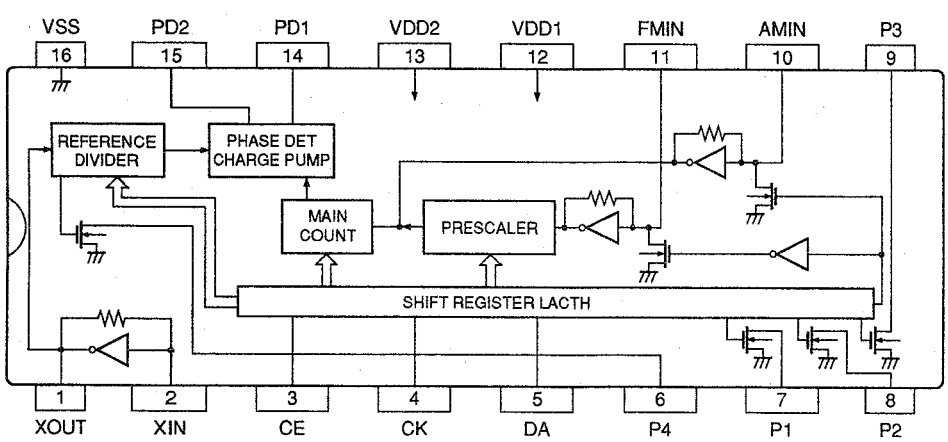
*PD5290A(CDX-FM63)



LB1836M



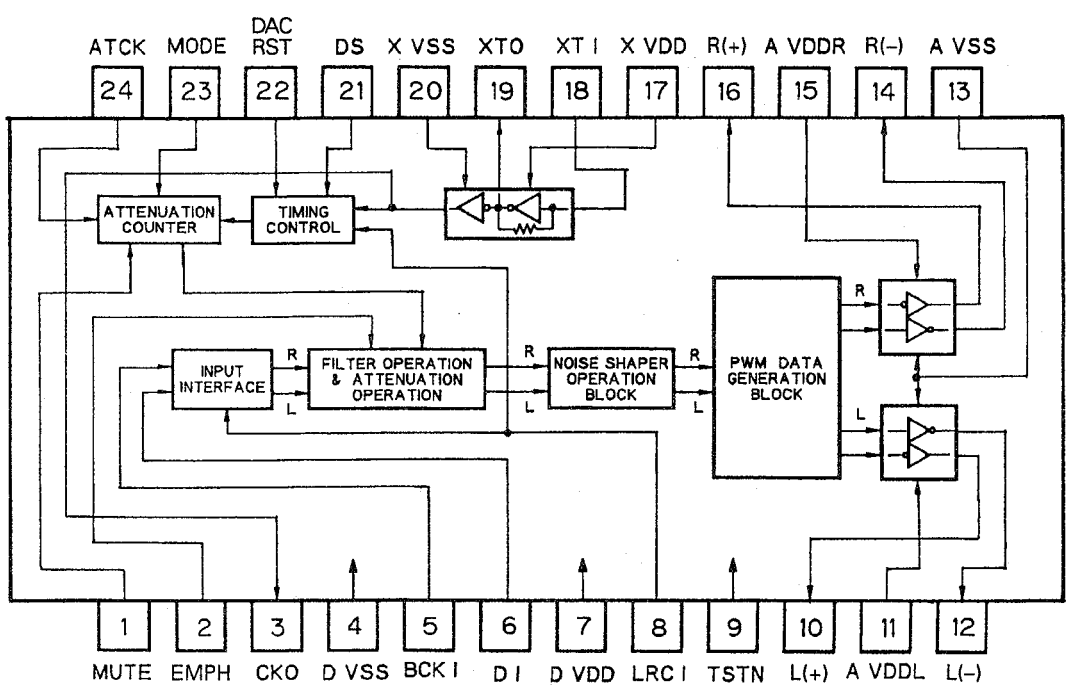
BU2611F



● Pin Functions (SM5874AM)

Pin No.	Pin Name	I/O	Function and Operation
1	MUTE	I	Mode H: Soft mute ON/OFF Mode L: Attenuator level DOWN/UP
2	EMPH	I	De-emphasis ON/OFF terminal
3	CKO	O	Oscillation output clock
4	DVSS		Digital GND (0V)
5	BCKI	I	Input data bit clock
6	DI	I	Serial data input
7	DVDD		Digital VDD (5V)
8	LRCI	I	Input data sample rate (fs) clock
9	TSTN	I	Test
10	L(+)	O	Lch analogue output (+)
11	AVDDL		Analogue VDD
12	L(-)	O	Lch analogue output (-)
13	AVSS	I	Analogue VSS
14	R(-)	O	Rch analogue output (-)
15	AVDDR		Analogue VDD
16	R(+)	O	Rch analogue output (+)
17	XVDD		Crystal VDD (5V)
18	XTI	I	Oscillation input
19	XTO	O	Oscillation output
20	XVSS		Crystal VSS (0V)
21	DS	I	Normal / high-speed play mode select
22	DACRST	O	Reset output
23	MODE	I	Soft mute / attenuator mode select
24	ATCK	I	Attenuator level clock

*SM5874AM



5. EXPLODED VIEW PARTS LIST

NOTE:

- Parts marked by "✱"are generally unavailable because they are not in our Master Spare Parts List.
- Parts marked by "⊙"are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- **Chassis(CDX-FM67/UC)(Exploded View:Page 2-7)**

Mark No.	Description	Part No.
1	Screw	BMZ26P080FMC
2	Screw	BSZ30P055FZK
3	Connector	CDE4490
4	Lower Case	CNB1815
5	Case	CNB1900
6	Earth Plate	CNC5769
7	Main Unit	CWX1765
8	Extension Unit	CWX1780
9	Grille Assy	CXA7238
10	CD Mechanism Unit	CXK4000
11	Screw	PMS26P040FMC
12	Antenna Assy	CWM4158
13	Display Assy	CXA6961
14	Plug(CN4951)	CKS-460
15	Connector(CN4301)	CKS2224
16	Jack(CN4501)	CKS2310
17	Connector(CN4302)	CKS3195
18	Heat Sink	CNC4447
19	Holder	CNC5620
20	Screw	BPZ26P080FMC
21	Button	CAC3982
22	Door	CAT1624
23	Holder	CNC5362
24	Grille Unit	CXA7806
25	Insulator	CNM4150
26	Cord	CDE4289
27	Cord	CDE4299
28	Cord	CDE4541
29,30	·····	
31	Screw	HMF40P080FZK
32,33	·····	
34	Angle	CNB1874
35,36	·····	
37	Remote Control Assy	CXA7036
38	Screw	BSZ30P050FMC

Mark No.	Description	Part No.
39	Cord	CDE4087
40	Antenna Cable	CDH1190
41	Chassis	CNA1555
42	Case	CNB1764
43	Antenna Unit	CWX1782
44	Cord	CDE4542
45	Case	CNS3279
46	Display Unit	CWM4153
47	Grille Unit	CXA7032
48	Connector(CN1701)	CKS2770
49	Connector(CN1801)	CKS2779
50	Connector(CN1802)	CKS3127
51	Plug(CN4503)(White)	CKS1222
52	Plug(CN4502)(Red)	CKS2812
53	Antenna Jack(CN4504)	CKX1006
54	Plug(CN4901)	CKS-785
55	Holder	CNC5621
56	Housing	CNV4019
57	Lens	CNV4020
58	Cap	CNS1472
59	Resistor	RS1/2P102JL
60	Transistor(Q4953)	2SB942
61	Connector	CDE4366
62	LCD(LCD4901)	CAW1273
63-73	·····	
74	Spring	CBH-865
75	Bracket	CNS3313
76	Bracket	CNC5116
77-82	·····	
83	Screw	PMS30P050FZK
84	Battery Cover	CNS3571
85	Cushion	CNM3182

● The CDX-FM67/EW and CDX-FM63/UC Parts Lists enumerate the parts which differ from those enumerated in the CDX-FM67/UC Parts List only. The parts other than those enumerated in the former are identical with those in the latter, to which you are requested to refer, accordingly. The CDX-FM67/UC Parts List is given on page 1-25.

Mark No.	Description	CDX-FM67/UC Part No.	CDX-FM67/EW Part No.	CDX-FM63/UC Part No.
4	Lower Case	CNB1815	CNB1885	CNB1815
5	Case	CNB1900	CNB1893	CNB1900
7	Main Unit	CWX1765	CWX1765	CWX1766
8	Extension Unit	CWX1780	CWX1877	CWX1780
9	Grille Assy	CXA7238	CXA7239	CXA7241
13	Display Assy	CXA6961	CXA6962	·····
22	Door	CAT1624	CAT1645	CAT1624
24	Grille Unit	CXA7806	CXA7807	CXA7809
27	Cord	CDE4299	CDE4300	CDE4299
37	Remote Control Assy	CXA7036	CXA7028	·····
44	Cord	CDE4542	CDE4542	·····
45	Case	CNS3279	CNS2832	·····
46	Display Unit	CWM4153	CWM4155	·····
47	Grille Unit	CXA7032	CXA7033	·····
54	Plug(CN4901)	CKS-785	CKS-785	·····
55	Holder	CNC5621	CNC5621	·····
56	Housing	CNV4019	CNV4019	·····
57	Lens	CNV4020	CNV4020	·····
62	LCD(LCD4901)	CAW1273	CAW1273	·····
63	Display Assy	·····	·····	CXA7558
64	Cord	·····	·····	CDE4478
65	Screw	·····	·····	BPZ26P100FZK
66	Button	·····	·····	CZA3245
67	Case(Upper)	·····	·····	CZN6315
68	Case(Lower)	·····	·····	CZN6317
69	LCD(LCD4901)	·····	·····	CAW1274
71	Bracket	·····	·····	CZN6250
72	Holder	·····	·····	CZN6251
73	Connector(CN4901)	·····	·····	CKS3126
74	Spring	CBH-865	·····	·····
75	Bracket	CNS3313	·····	·····
76	Bracket	CNC5116	·····	·····
77	Bracket	·····	CNC5115	·····
78	Bracket	·····	CNC5114	·····
79	Washer	·····	WG40FZK	·····
80	Screw	·····	BMZ40P060FZK	·····
81	Screw	·····	BPZ30P050FZK	·····
82	Screw	·····	BNC40P120FZK	·····
83	Screw	PMS30P050FZK	·····	·····
84	Battery Cover	CNS3571	CNS2850	·····
85	Cushion	CNM3182	·····	·····

● CD Mechanism Unit(Exploded View:Page 2-4)

Mark No.	Description	Part No.
1	Screw	BMZ20P030FMC
2	Screw	BMZ20P025FMC
3	Screw(M2.6X3)	CBA1065
4	LED	BR4361F
5	·····	
6	Screw	CBA1041
7	Screw	CBA1077
8	Screw	CBA1086
9	Screw	CBA1229
10	Screw	CBA1243
11	Washer	CBF1038
12	Spring	CBH1488
13	Spring	CBH1497
14	Spring	CBH1498
15	·····	
16	Spring	CBH1588
17	Spring	CBH1589
18	Spring	CBH1744
19	Spring	CBH1592
20	Spring	CBH1593
21	Spring	CBH1594
22	Spring(Silver)	CBH1596
23	Spring	CBH1597
24	Spring	CBH1599
25	Spring	CBH1604
26	Spring	CBH1605
27	Spring(Silver)	CBH1606
28	Spring(Brown)	CBH1607
29	Spring	CBH1631
30	Spring(Black)	CBH1633
31	Spring	CBH1667
32	Spring	CBH1706
33	Spring	CBH1721
34	Spring	CBL1157
35	Arm	CBL1186
36	Arm	CBL1187
37	Spring	CBL1210
38	Connector	CDE4244
39	·····	
40	PU Unit	CGY1036
41-44	·····	
45	Shaft	CLA2027
46	Shaft	CLA2322
47	Shaft	CLA2345
48	Link	CNC5150
49	Lever	CNC5166
50	Arm	CNC5168
51	Arm	CNC5169
52	Bracket	CNC5170
53	CM Bracket	CNC5171
54	Cover	CNC5172
55	Upper Frame	CNC5175
56	Main Frame	CNC5176
57	Side Frame	CNC5178
58	Bracket	CNC5462
59	Cover	CNC5567
60	Cover	CNC5576
61	Lever	CNC5678
62	Plate	CNC5782
63	Spacer	CNM1787
64	Sheet	CNM3897
65	Sheet	CNM4337
66	Insulator	CNM4266
67	P.C.Board	CNP3642
68	P.C.Board	CNP3730
69	Belt	CNT1047
70	Rack	CNV3355
71	Holder	CNV3363
72	Gear	CNV3753
73	Gear	CNV3754
74	Guide	CNV3756
75	Arm	CNV3757
76	Arm	CNV3758
77	Arm	CNV4185
78	Worm Wheel	CNV3761
79	Gear	CNR1382
80	Gear	CNV3763
81	Gear	CNV3764
82	Gear	CNV3765
83	Gear	CNV3766
84	Gear	CNV3767
85	Arm	CNV3769
86	Guide	CNV3770
87	Guide	CNV3771
88	Guide	CNV3772
89	Guide	CNV3773
90	Arm	CNV3775
91	Bearing	CNV3778
92	Holder	CNV3779
93	Damper	CNV3780

Mark No.	Description	Part No.
94	Cam	CNV3781
95	Guide	CNV3784
96	Guide	CNV3785
97	Arm	CNV3787
98	Plate	CNV3912
99	Arm	CNV3914
100	Composite P.C.Board	CNX2236
101	·····	
102	Composite P.C.Board	CNX2237
103	·····	
104,105	·····	
106	Switch(S802-805)	CSN1012
107	Switch(S801)	CSN1029
108	P.C.Board Unit	CWX1809
109	Connector(6P)	CKS1944
110	Connector(17P)	CKS1955
111	Connector(30P)	CKS1968
112	Connector(7P)	CKS2406
113	Motor Unit(M804)	CXA4649
114	Damper Unit	CXA6443
115	Stage Chassis Unit	CXA6608
116	CRG Chassis Unit	CXA6609
117	Steer Unit	CXA6610
118	Bracket Unit	CXA6611
119	Magazine Holder Unit	CXA6612
120	Lever Unit	CXA6613
121	Lower Cover Unit	CXA6614
122	Bracket Unit	CXA6615
123	Cam Ring Unit	CXA6616
124	Lever Unit	CXA6619
125	Lever Unit	CXA6620
126	Link Unit	CXA6621
127	Arm Unit	CXA6622
128	Arm Unit	CXA6623
129	Arm Unit	CXA6624
130	Frame Unit	CXA6625
131	Lever Unit	CXA6626
132	Motor Unit(M803)	CXA6977
133	Motor Unit(M802)	CXA6978
134	Screw Unit	CXA6990
135	Motor Unit(M801)	CXA6991
136	Arm Unit	CXA7153
137	·····	
138	Clamper Unit	CXA7632
139,140	·····	
141	Screw	JFZ17P025FNI
142	Screw	JFZ20P025FNI
143	Photo-transistor (P801,802)	PT4800
144	Spring	CBH1741
145	Screw	JFZ20P014FMC
146	Washer	CBF1002

6. ELECTRICAL PARTS LIST

NOTE:

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

Chip Resistor

RS1/OSOOOJ,RS1/OOSOOOJ

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

=====Circuit Symbol & No.	Part Name=====	Part No.
Unit Number : CWM4153(CDX-FM67/UC) CWM4155(CDX-FM67/EW)		
Unit Name : Display Unit		
MISCELLANEOUS		
IC 4901		PDX002A
IC 4902		RPM-678CBR-L
Q 4901		2SD1767
Q 4902		2SB710
Q 4903		DTC114EK
D 4901		MA8056M
D 4902 4903		MA153
X 4901	4.9152MHz	CSS1084
S 4901	Switch(POWER)	CSG-253
IL 4901 4902	Lamp 14V40mA(FM67/UC)	CEL1386
IL 4901 4902	Lamp 14V40mA(FM67/EW)	CEL1390
LCD4901	LCD	CAW1273
RESISTORS		
R 4901		RS1/10S102J
R 4902 4908 4910 4914 4917 4918 4919		RS1/10S0R0J
R 4903		RS1/10S223J
R 4904 4905		RS1/10S332J
R 4909 4911 4915 4916		RS1/10S471J
CAPACITORS		
C 4901		CKSQYB473K50
C 4902 4903		CSZSR100M6R3
C 4904 4905 4906		CKSQYB104K16
Unit Number : CXA7558(CDX-FM63)		
Unit Name : Display Assy		
MISCELLANEOUS		
IC 4901		PD6128A
Q 4901		2SD1767
Q 4902		2SB710
Q 4903		DTC114EK
D 4901		MA8056M
D 4902 4903		MA153
D 4904 4905 4906 4907	LED	CL150FG
D 4908 4909 4910 4911	LED	CL150FG
D 4912 4913	LED	CL150FG
D 4914 4915 4916 4917	LED	CL150FG
X 4901	4.9152MHz	CSS1084
LCD4901	LCD	CAW1274
RESISTORS		
R 4901		RS1/10S102J
R 4903		RS1/10S223J
R 4904 4905		RS1/10S332J
R 4906 4920 4927 4928		RS1/10S473J
R 4909 4911 4921 4922 4923 4924 4925 4926		RS1/10S471J
R 4929 4930		RS1/4S751J
R 4931 4932 4933		RS1/4S471J
R 4934		RS1/10S121J
CAPACITORS		
C 4901		CKSQYF473Z50
C 4902 4903		CSZSR100M6R3
C 4904 4905		CKSQYB103K50
Unit Number : CWX1765(CDX-FM67/UC,EW)		
Unit Name : Main Unit		
MISCELLANEOUS		
IC 1001		UPC2571GS
IC 1201		UPD63700GF1
IC 1401		XRA6797FP
IC 1601		SM5874AM
IC 1602		XRA4560F
IC 1603		NJM78L05A
IC 1701		PD5291A
IC 1702		LH5160HN-10L
IC 1704		PAJ002A
IC 1801		LB1836M
Q 1001		2SA1015
Q 1401 1709		2SB1238
Q 1701		DTA144ES
Q 1707 1801		DTA123JS
Q 1708 1802		DTC114YS
D 1401 1402 1403		ERA15-02VH
D 1701 1702		1SS292
X 1601	16.9340MHz	CSS1328
X 1701	6.14MHz	CSS1336
S 1701 1702	Switch(EJECT,RESET)	CSG1059
VR1001	Semi-fixed 2.2kΩ(B)	CCP1177
VR1002	Semi-fixed 22kΩ(B)	CCP1183
VR10031004	Semi-fixed 47kΩ(B)	CCP1185
RESISTORS		
R 1001		RD1/4PS220JL
R 1002		RD1/4PS0R0JL
R 1003		RD1/4PS103JL
R 1004 1619 1768		RS1/16S102J
R 1005		RS1/16S823J
R 1006		RS1/16S182J
R 1007		RS1/16S333J
R 1011 1012		RS1/16S683J
R 1013 1024 1025		RD1/4PS102JL
R 1014 1410		RS1/16S473J
R 1018		RD1/4PS622JL
R 1019 1401 1407 1716		RS1/16S563J
R 1020		RS1/16S622J
R 1021 1701		RS1/16S513J
R 1022 1408		RS1/16S133J

=====Circuit Symbol & No. Part Name=====		Part No.
R 1027		RS1/16S183J
R 1028		RS1/16S822J
R 1201 1406 1411 1605 1606 1607 1608 1702 1712 1741		RS1/16S103J
R 1402 1403 1613 1614 1615 1616		RS1/16S163J
R 1404		RS1/16S753J
R 1405 1708		RS1/16S433J
R 1409		RS1/16S153J
R 1412		RS1/16S152J
R 1601 1706 1770		RS1/16S0R0J
R 1602		RS1/16S471J
R 1609 1610 1611 1612		RS1/16S752J
R 1617 1618 1769		RS1/16S101J
R 1704		RS1/16S154J
R 1705 1713 1718 1721 1730 1731 1732 1733 1734 1737		RS1/16S104J
R 1709 1710 1714 1722 1729 1735 1744 1745		RS1/16S222J
R 1717		RS1/16S123J
R 1719 1761 1762 1763 1764 1765		RS1/16S0R0J
R 1738 1739 1747 1748		RS1/16S104J
R 1751 1752 1753 1754 1755 1756		RS1/16S103J
R 1767		RD1/4PS3R9JL
R 1771		RS1/16S102J
R 1801 1802		RD1/4PS391JL
CAPACITORS		
C 1001 1008 1010 1011		CKSRYB102K50
C 1002 1608		CEA101M6R3LL
C 1003 1021 1602 1603 1604 1605		CKSQYB104K16
C 1004		CEA470M6R3LL
C 1005		CCSRCH101J50
C 1006 1023		CKSRYB561K50
C 1007		CKSYB334K16
C 1009		CCSRCH181J50
C 1013 1617 1618 1701 1702 1705		CKSRYB103K25
C 1014		CCSRCH220J50
C 1015 1201 1202		CKSYF105Z16
C 1018		CEA220M6R3LL
C 1022		CKSRYB332K50
C 1026		CKSRYB103K25
C 1203		CKSRYB471K50
C 1401		CSZA220M10
C 1402		CKSQYB103K50
C 1403		CKSQYB153K50
C 1404 1405		CEAS221M10
C 1406 1407		CKSRYB152K50
C 1408		CKSRYB271K50
C 1606 1607		CCSRCH470J50
C 1609 1610		CCSRCH221J50
C 1611 1612 1613 1614		CCSRCH680J50
C 1616		CKSYB224K16
C 1703		CASA330M10
C 1704		CEA221M6R3LL
C 1706		CKSRYB103K50
C 1710		CKSRYB103K25
C 1802		CEA220M16LL
Unit Number : CWX1766(CDX-FM63/UC)		
Unit Name : Main Unit		
MISCELLANEOUS		
IC 1001		UPC2571GS
IC 1201		UPD63700GF1
IC 1401		XRA6797FP
IC 1601		SM5874AM
IC 1602		XRA4560F
IC 1603		NJM78L05A
IC 1701		PD5290A
IC 1704		PAJ002A
IC 1801		LB1836M
Q 1001		2SA1015

=====Circuit Symbol & No. Part Name=====		Part No.
Q 1401 1709		2SB1238
Q 1701		DTA144ES
Q 1707		DTA123JS
Q 1708		DTC114YS
Q 1801		DTA123JS
Q 1802		DTC114YS
D 1401 1402 1403		ERA15-02VH
X 1601	16.9340MHz	CSS1328
X 1701	6.14MHz	CSS1336
S 1701 1702	Switch(EJECT,RESET)	CSG1059
VR1001	Semi-fixed 2.2kΩ(B)	CCP1177
VR1002	Semi-fixed 22kΩ(B)	CCP1183
VR1003 1004	Semi-fixed 47kΩ(B)	CCP1185
RESISTORS		
R 1001		RD1/4PS220JL
R 1002		RD1/4PS0R0JL
R 1003		RD1/4PS103JL
R 1004 1619 1768		RS1/16S102J
R 1005		RS1/16S823J
R 1006		RS1/16S182J
R 1007		RS1/16S333J
R 1011 1012		RS1/16S683J
R 1013 1024 1025		RD1/4PS102JL
R 1014 1410		RS1/16S473J
R 1018		RD1/4PS622JL
R 1019 1401 1407 1716		RS1/16S563J
R 1020		RS1/16S622J
R 1021 1701		RS1/16S513J
R 1022 1408		RS1/16S133J
R 1027		RS1/16S183J
R 1028		RS1/16S822J
R 1201 1406 1411 1605 1606 1607 1608 1702 1712 1741		RS1/16S103J
R 1402 1403 1613 1614 1615 1616		RS1/16S163J
R 1404		RS1/16S753J
R 1405 1708		RS1/16S433J
R 1409		RS1/16S153J
R 1412		RS1/16S152J
R 1601 1719 1761 1762 1763 1764 1765		RS1/16S0R0J
R 1602		RS1/16S471J
R 1609 1610 1611 1612		RS1/16S752J
R 1617 1618		RS1/16S101J
R 1703 1704		RS1/16S154J
R 1705 1706 1713 1718 1721 1730 1731 1732 1733 1734		RS1/16S104J
R 1709 1710 1714 1722 1729 1735 1744 1745		RS1/16S222J
R 1717		RS1/16S123J
R 1747 1748		RS1/16S104J
R 1751 1752 1753 1754 1755 1756		RS1/16S103J
R 1767		RD1/4PS3R9JL
R 1771		RS1/16S102J
R 1801 1802		RD1/4PS391JL
CAPACITORS		
C 1001 1008 1010 1011		CKSRYB102K50
C 1002 1608		CEA101M6R3LL
C 1003 1021 1602 1603 1604 1605		CKSQYB104K16
C 1004		CEA470M6R3LL
C 1005		CCSRCH101J50
C 1006 1023		CKSRYB561K50
C 1007		CKSYB334K16
C 1009		CCSRCH181J50
C 1013 1617 1618 1701 1705		CKSRYB103K25
C 1014		CCSRCH220J50
C 1015 1201 1202		CKSYF105Z16
C 1018		CEA220M6R3LL
C 1022		CKSRYB332K50
C 1026		CKSRYB103K25
C 1203		CKSRYB471K50

=====Circuit Symbol & No. Part Name=====		Part No.
C 1401		CSZA220M10
C 1402		CKSQYB103K50
C 1403		CKSQYB153K50
C 1404 1405		CEAS221M10
C 1406 1407		CKSRYB152K50
C 1408		CKSRYB271K50
C 1606 1607		CCSRCH470J50
C 1609 1610		CCSRCH221J50
C 1611 1612 1613 1614		CCSRCH680J50
C 1616		CKSYB224K16
C 1703		CASA330M10
C 1706		CKSRYB103K50
C 1710		CKSRYB103K25
C 1802		CEA220M16LL
Unit Number :		
Unit Name : Extension P.C.Board		
MISCELLANEOUS		
IC 4301		TC4066BF
IC 4351		BA1404F
IC 4352		UPC4570G
IC 4501		BU2611F
Q 4301		DTA114EK
Q 4302 4960		DTC114EK
Q 4303 4304		DTC143TK
Q 4306 4351 4958		DTC114EK
Q 4352		DTC114EK
Q 4353		DTC143TK
Q 4501 4502		2SC2412K
Q 4503 4504 4505		2SC2059K
Q 4951 4952 4961		2SD1859
Q 4953		2SB942
Q 4957		2SB710
Q 4959		2SB710
D 4303		MA152WA
D 4351 4352		RB421D
D 4501 4502 4504		MA110
D 4503		MA110
D 4505		KV1440
D 4951 4952		ERA15-02VH
D 4954		MA8051M
D 4956		MA8091L
D 4957		MA8033H
D 4958		HZS11LA1
L 4301 4302	Inductor	CTF1301
L 4351	Inductor	CTF1302
L 4352	Ferri-Inductor	LAU2R2K
L 4501	Coil	CTC1079
L 4502	Ferri-Inductor	LAU1R0M
L 4951	Choke Coil	CTH1149
L 4952	Ferri-Inductor	LAU101K
TC4351	Trimmer	CCG-088
X 4351	38000kHz	CSS1072
X 4501	Crystal 7.200MHz	CSS1030
VR4351	Semi-fixed 47kΩ (B)	VRMB6VS473
VR4352	Semi-fixed 220kΩ (B)	VRMB6VS224
VR4353	Volume 22kΩ (B)	VRMB6VS223
VR4501	Semi-fixed 4.7kΩ (B)	VRMB6VS472
EF4951	EMI Filter	CCG1006
RESISTORS		
R 4301 4302		RS1/10S471J
R 4303		RS1/8S0R0J
R 4305 4306		RS1/10S152J
R 4307 4308		RS1/10S152J
R 4309 4310		RS1/10S472J

=====Circuit Symbol & No. Part Name=====		Part No.
R 4311 4312		RS1/10S621J
R 4313 4314		RS1/10S223J
R 4315 4316		RS1/10S102J
R 4317 4318		RS1/10S392J
R 4319 4352 4502 4510 4511		RS1/10S103J
R 4321 4322		RS1/10S681J
R 4351		RS1/10S362J
R 4353 4354 4506 4507 4972		RS1/10S103J
R 4355		RS1/10S473J
R 4356		RS1/10S102J
R 4357		RS1/10S132J
R 4358		RS1/10S122J
R 4359		RS1/10S562J
R 4360 4361 4514 4954		RS1/10S104J
R 4362		RS1/10S433J
R 4363		RS1/10S472J
R 4364		RS1/10S221J
R 4365		RS1/10S223J
R 4501		RS1/10S223J
R 4503		RS1/10S681J
R 4504		RS1/10S242J
R 4505		RS1/10S822J
R 4508 4974		RS1/10S101J
R 4509		RS1/10S560J
R 4512 4959		RS1/10S332J
R 4513		RS1/10S222J
R 4515		RS1/10S474J
R 4516		RS1/10S154J
R 4517		RS1/10S152J
R 4518		RS1/10S331J
R 4951		RS1/10S183J
R 4952		RS1/10S752J
R 4953		RS1/10S204J
R 4956		RS1/10S181J
R 4958		RS1/10S223J
R 4960		RS1/10S223J
R 4961		RS1/10S332J
R 4962		RS1/4S221J
R 4963		RS1/4S221J
R 4964		RS1/8S470J
R 4965		RS1/8S221J
R 4971 4973		RS1/10S201J
R 4975		RS1/10S241J
R 4976		RS1/10S511J
R 4977		RS1/10S681J
R 4978		RS1/10S104J
CAPACITORS		
C 4301 4302		CEA330M6R3LL
C 4303 4304 4951		CKSQYB472K50
C 4305 4306		CKSQYB822K50
C 4307 4308		CKSQYB472K50
C 4309 4310		CKSQYB332K50
C 4311 4312		CKSQYB102K50
C 4313 4314		CEA010M50LS2
C 4351 4356 4364 4506 4953		CEA100M16LS2
C 4352 4360 4365 4507 4514		CKSQYB103K50
C 4353 4509		CCSQCH100D50
C 4354 4362		CKSQYB104K16
C 4355		CEA220M16LL
C 4357		CCSQCH180J50
C 4358		CKSYB105K16
C 4359 4963		CEA220M16LL
C 4361	(CDX-FM67/UC, FM63/UC)	CKSQYB391K50
C 4361	(CDX-FM67/EW)	CKSQYB182K50
C 4363		CKSQYB152K50
C 4366		CEAR68M50LL
C 4501 4502		CCSQCH270J50
C 4503		CEA330M16NPLL

=====Circuit Symbol & No. Part Name=====		Part No.
C 4504		CKSQYB473K50
C 4505		CKSQYB104K16
C 4508 4513		CCSQCH010C50
C 4510		CCSQCH200J50
C 4511		CCSQCH330J50
C 4512		CCSQCH180J50
C 4515		CCSQCH030C50
C 4516		CKSQYB103K50
C 4517		CKSQYB102K50
C 4520		CEA100M16LS2
C 4521		CCSQCH100D50
C 4522		CKSYB103K25
C 4952 4954 4971	470 μF/16V	CCH1183
C 4956		CEA220M10LL
C 4957 4962		CEA101M10LS
C 4960	470 μF/16V	CCH1183
C 4961		CEA470M10LL
C 4965		CKSQYB102K50
C 4972 4973		CKSQYB102K50
C 4974 4976		CKSQYB102K50

Unit Number : CWX1782
Unit Name : Antenna Unit

MISCELLANEOUS

Q 4506		2SC1740S
D 4506		1SS133
L 4503	Ferri-Inductor	LAU4R7K
RY4501	Relay	CSR1014

RESISTORS

R 4520		RD1/4PS683JL
R 4521		RD1/4PS103JL

CAPACITORS

C 4518		CKCYB102K50
C 4519		CEA101M10LS

Unit Number :
Unit Name : P.C.Board

C 801 802		CKSQYB102K50

Unit Number :
Unit Name : Mechanism P.C.Board

D 802	LED	BR4361F
S 805	Switch(Home)	CSN1012

Unit Number :
Unit Name : Photo P.C.Board

D 801	LED	BR4361F
S 801	Switch(RSTP)	CSN1025
S 802	Switch(MAG)	CSN1012

Miscellaneous Parts List

	PU Unit	CGY1036
M 802	Motor Unit(ELV)	CXA6978
M 803	Motor Unit(Tray)	CXA6977
M 801	Motor Unit(Spindle)	CXA6991
M 804	Motor Unit(Carriage)	CXA4649
P 801 802	Photo-Transistor	PT4800
S 803 804	Switch(TRP,DSP)	CSN1012

PIONEER
The Art of Entertainment

Service Manual

ORDER NO.
CRZ1637

UNIVERSAL MULTI CD SYSTEM

CDX-FM67 UC,EW
CDX-FM63 UC

COMPACT disc DIGITAL AUDIO

NOTE:

- **See the separate manual CX-624 (CRT1631) for the CD mechanism description and disassembly.**
- **The CD mechanism employed in this model is one of CX-624 series.**

CHAPTER 2

CONTENTS

CHAPTER 2

1. EXPLODED VIEW 2-3
2. PACKING METHOD 2-9
3. CONNECTION DIAGRAM(1) 2-13
4. SCHEMATIC CIRCUIT DIAGRAM(1) 2-17
5. SCHEMATIC CIRCUIT DIAGRAM(2) 2-20
6. CONNECTION DIAGRAM(2) 2-23
7. CONNECTION DIAGRAM(3) 2-27
8. SCHEMATIC CIRCUIT DIAGRAM(3) 2-31
9. BLOCK DIAGRAM 2-33

PIONEER ELECTRONIC CORPORATION 4-1,Meguro 1-Chome,Meguro-ku, Tokyo 153,Japan
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K-FFS.NOV. 1994 Printed in Japan

1. EXPLODED VIEW

● **Magazine Assy(CXA5483)**

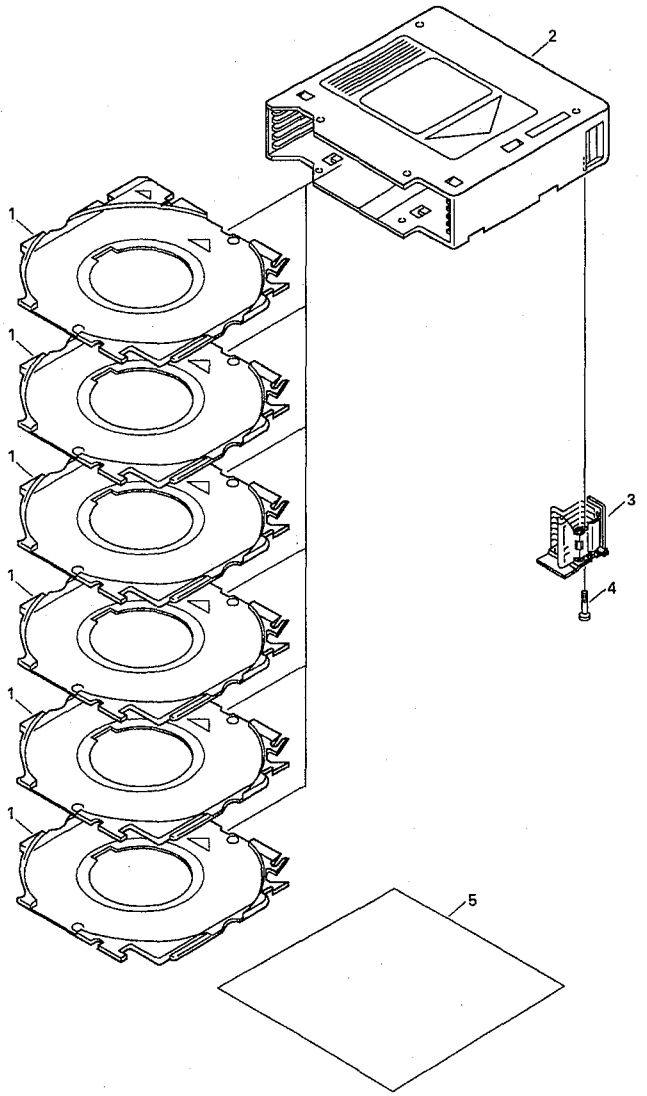


Fig.1

● **Parts List**

Mark No.	Description	Part No.
1	Tray Unit	CXA5484
2	Case Unit	CXA5479
3	Bracket Assy	CXA5480
4	Screw(M2×13)	CBA1272
5-1	Owner's Manual	CRD1639
5-2	Label	CRW1248

● CD Mechanism Unit(Parts List:Page 1-27)

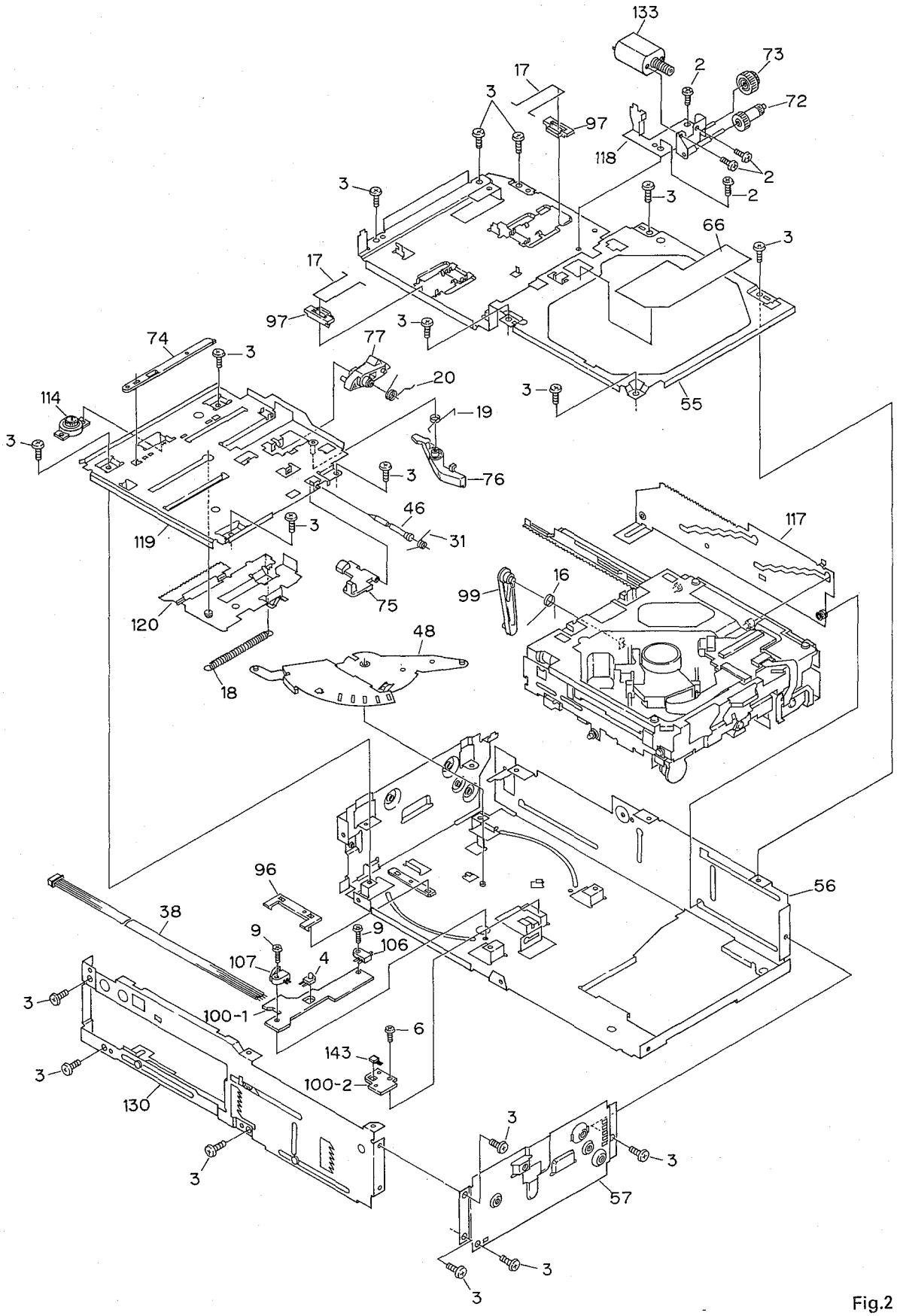
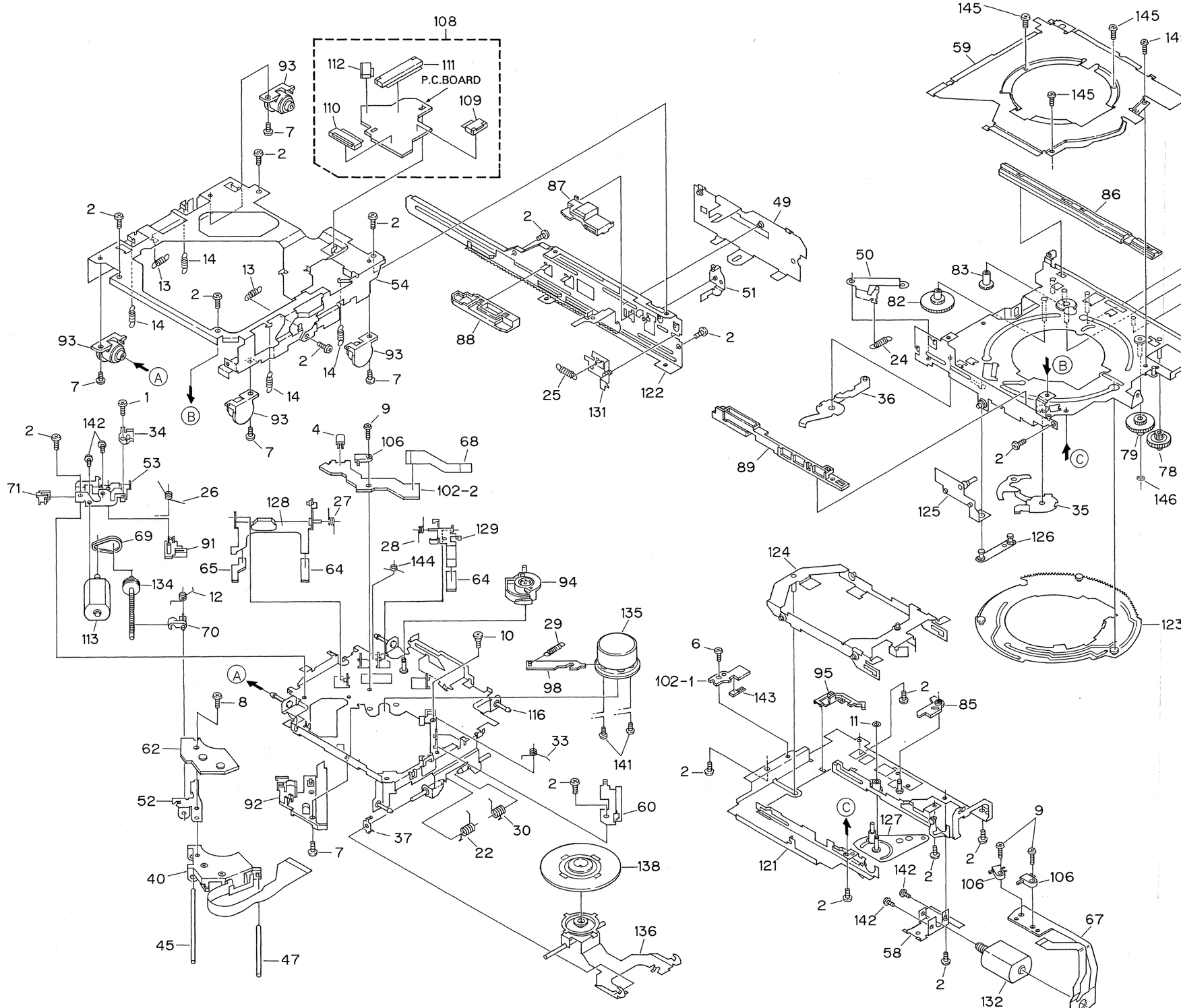
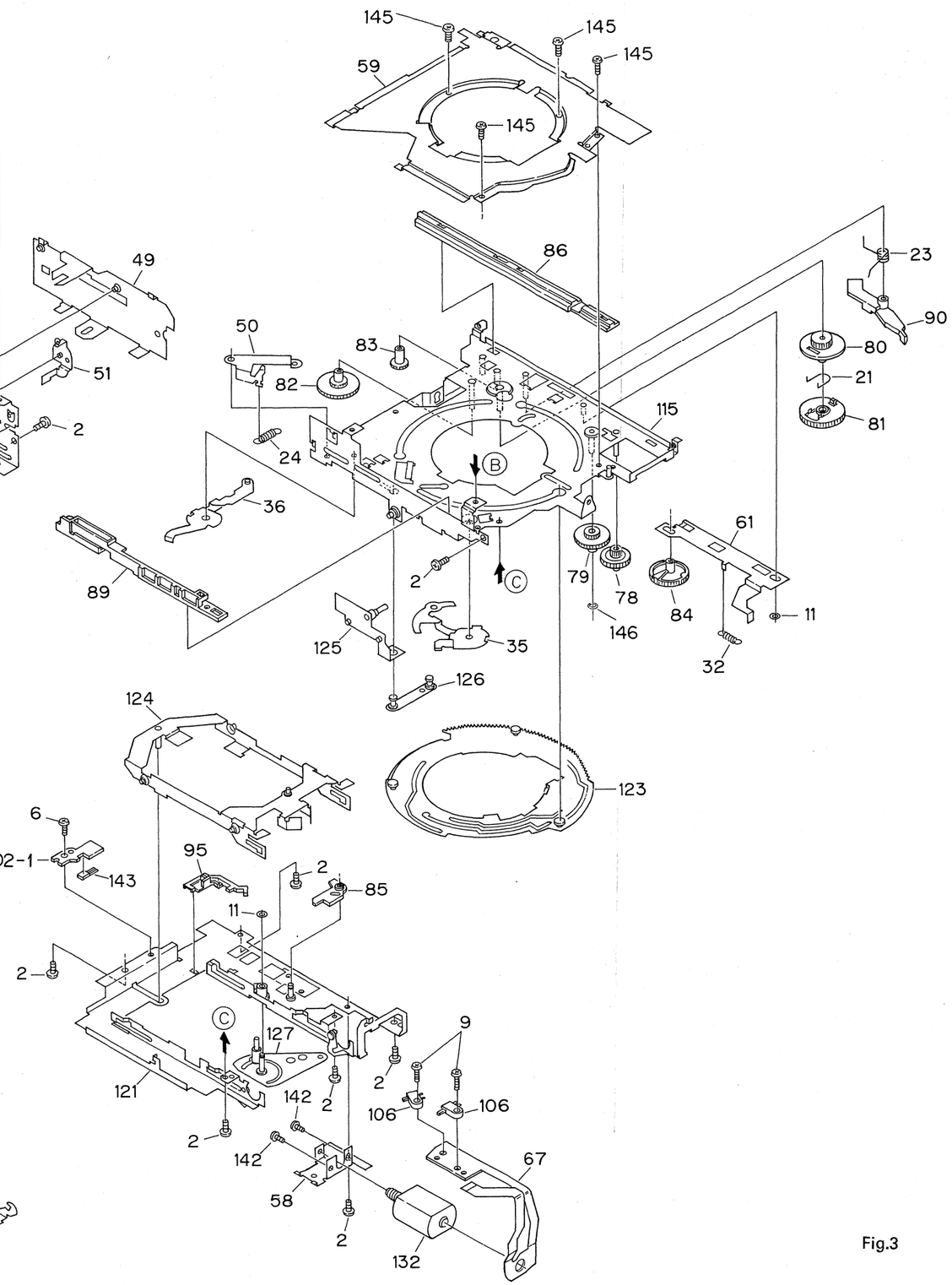


Fig.2


108
112
111
P.C.BOARD
110
109
93
7
2
87
49
54
88
51
25
131
122
1
142
34
53
71
26
69
91
134
12
113
70
9
4
106
68
102-2
128
27
65
64
28
129
144
94
135
29
98
10
116
33
141
8
62
52
92
37
22
30
60
40
45
47
138
136
A
B
C


145
59
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82
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21
81
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115
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61
79
78
84
146
11
32
125
35
126
124
123
6
102-1
143
95
85
127
121
142
106
67
58
132
A
B
C

Fig.3

● **Chassis(Parts List:Page 1-25)**

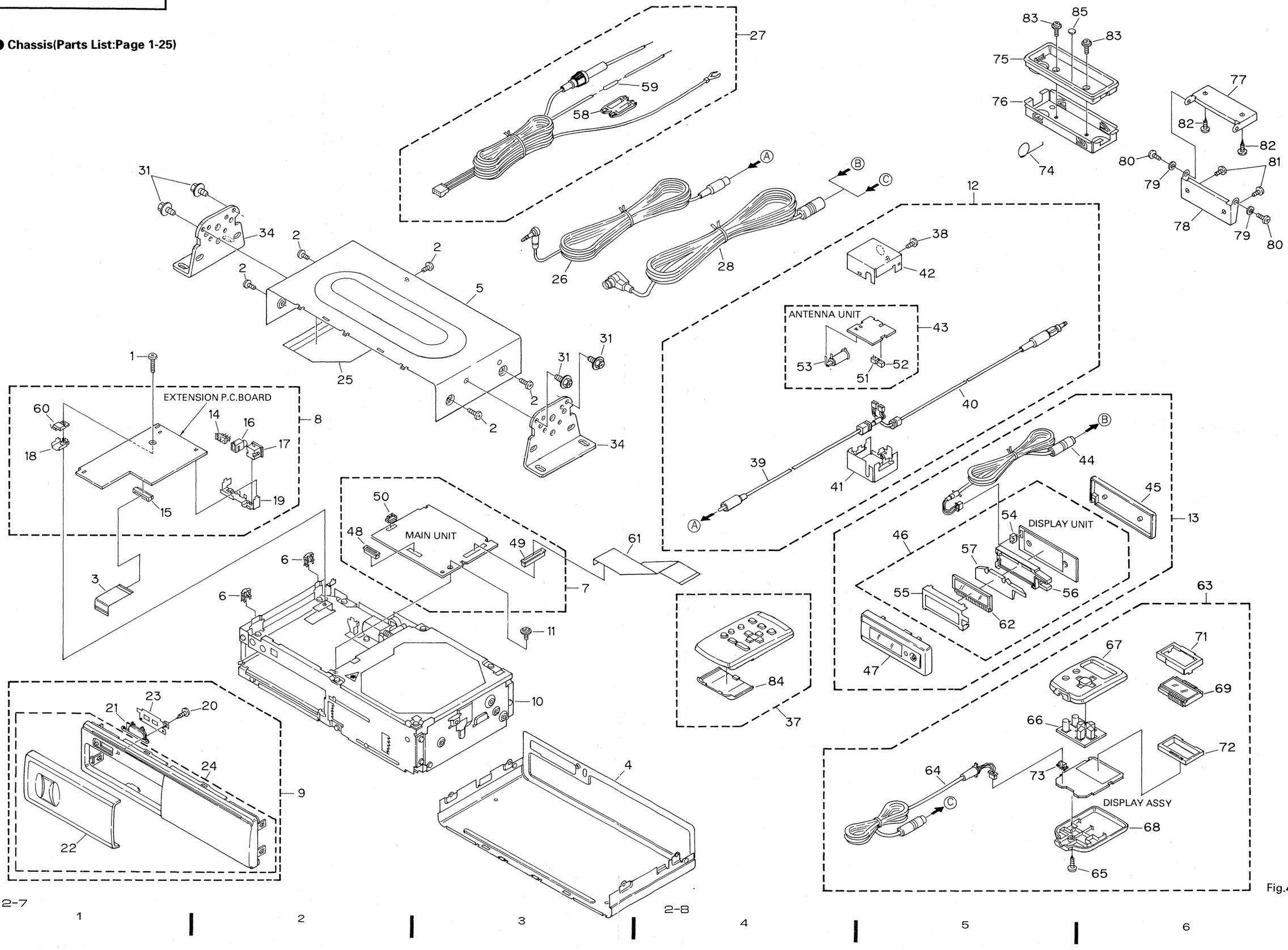


Fig.4

2. PACKING METHOD

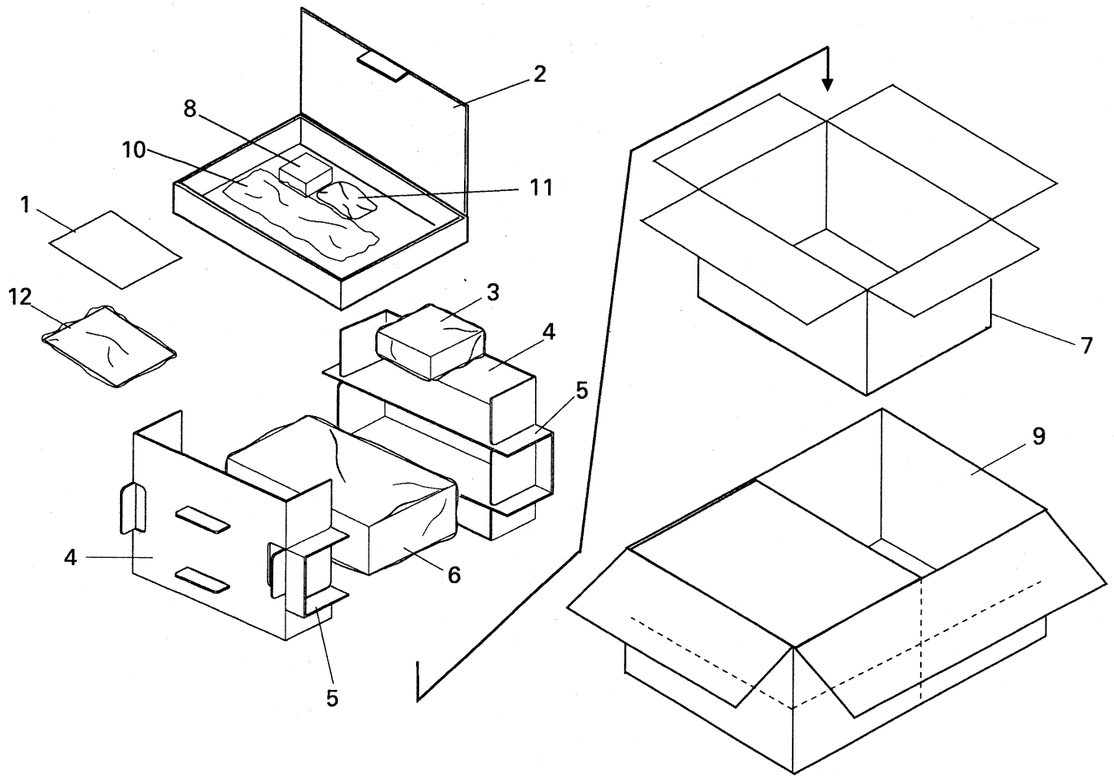


Fig.5

● **Owner's Manual**

Part No.	Model	Language
CRD1805	CDX-FM67/UC	English,French
CRD1806	CDX-FM67/EW	English,Italian,French,German,Dutch
CRD1807	CDX-FM67/EW	Spanish,Portuguese,Swedish,Norwegian,Finnish
CRD1808	CDX-FM63/UC	English,French

● **Parts List**

✱:Non spare part

Mark	No.	Description	CDX-FM67/UC Part No.	CDX-FM67/EW Part No.	CDX-FM63/UC Part No.
	1	Owner's Manual	CRD1805	·····	CRD1808
	2	Sub Carton	CHG2523	CHG2524	CHG2525
	3	Magazine Assy	CXA5483	CXA5483	CXA5483
	4	Protector	CHP1677	CHP1677	CHP1677
	5	Protector	CHP1661	CHP1661	CHP1661
	6	Polyethylene Bag	CEG1185	CEG1042	CEG1185
	7	Carton	CHG2520	CHG2521	CHG2522
	8	Antenna Assy	CWM4158	CWM4158	CWM4158
	9	Contain Box	CHL2520	CHL2521	CHL2522
	10	Accessory Assy	CEA2038	CEA2039	CEA2041
	10-1	Cord(Antenna)	CDE4289	CDE4289	CDE4289
	10-2	Cord(Power Supply)	CDE4299	CDE4300	CDE4299
	10-3	Cord(Display)	CDE4541	CDE4541	CDE4541
	10-4	Screw Assy	CEA1962	CEA1962	CEA1962
	10-4-1	Screw(×4)	CBA1295	CBA1295	CBA1295
✱	10-4-2	Polyethylene Bag	E36-615	E36-615	E36-615
	10-4-3	Screw(×4)	HMB60P500FMC	HMB60P500FMC	HMB60P500FMC
	10-4-4	Screw(×4)	HMF40P080FZK	HMF40P080FZK	HMF40P080FZK
	10-4-5	Nut(×4)	NF60FMC	NF60FMC	NF60FMC
	10-5	Screw Assy	CEA1965	CEA1964	·····
✱	10-5-1	Polyethylene Bag	CEG-127	CEG-127	·····
	10-5-2	Screw(×2)	PMS30P050FZK	BMZ40P060FZK	·····
	10-5-3	Screw(×2)	·····	BNC40P120FZK	·····
	10-5-4	Screw(×2)	·····	BPZ30P050FZK	·····
	10-5-5	Washer(×2)	·····	WG40FZK	·····
✱	10-6	Polyethylene Bag	CEG-158	CEG-158	CEG-158
✱	10-7	Polyethylene Bag	CEG-158	·····	·····
	10-8	Battery	CEX1006	CEX1006	·····
	10-9	Angle(×2)	CNB1874	CNB1765	CNB1874
	10-10	Bracket	CNC5116	·····	·····
	10-11	Fastener	CNM3629	CNM3629	CNM1716
	10-12	Fastener	CNM3630	CNM3630	CNM1717
	10-13	Fastener	CNM3872	CNM3872	·····
	10-14	Fastener	CNM4041	CNM4041	·····
	10-15	Clamper	CNV3751	CNV3751	CNV3751
	10-16	Bracket	CNS3313	·····	·····
	10-17	Remote Control Assy	CXA7036	CXA7028	·····
	10-18	Spring	CBH-865	·····	·····
✱	10-19	Polyethylene Bag	E36-622	E36-622	E36-622
✱	10-20	Cushion	CNM3182	·····	·····
	10-21	Bracket	·····	CNC5114	·····
	10-22	Bracket	·····	CNC5115	·····
	11	Display Assy	CXA6961	CXA6962	CXA7558
	12-1	Polyethylene Bag	·····	CEG1116	·····
	12-2	Owner's Manual	·····	CRD1806	·····
	12-3	Owner's Manual	·····	CRD1807	·····
✱	12-4	Warranty Card	·····	CRY1071	·····

● Wa

① RF
No

REFO→

② CH
③ CH
Tes

REFO→

REFO→

④ CH
⑤ CH
Tes

REFO→

REFO→

⑥ CH
② CH
Nor

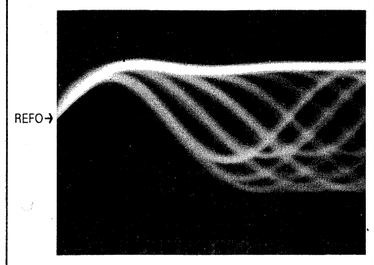
REFO→

REFO→

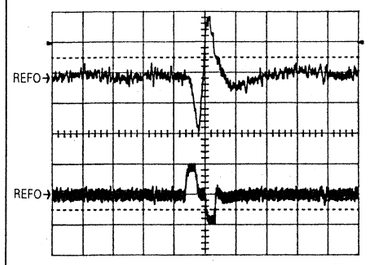
Note: 1. The encircled numbers denote measuring pointes in the circuit diagram.
2. Reference voltage
REFO: 2.5V

● Waveforms

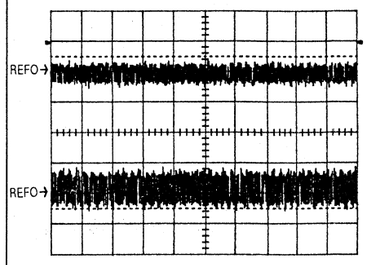
① RFO 0.5V/div. 0.2µs/div.
Normal mode: play



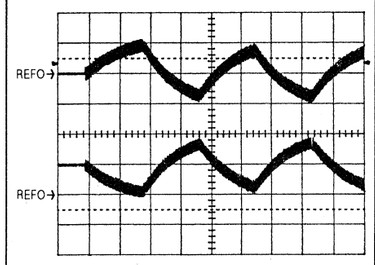
④ CH1: TEY 0.5V/div.
⑤ CH2: TIN 1V/div. 0.5ms/div.
Test mode: Single jump (FWD)



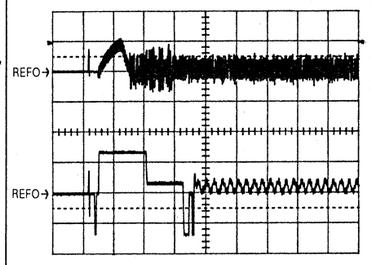
④ CH1: TEY 0.5V/div.
⑤ CH2: TIN 0.5V/div. 20ms/div.
Normal mode: Play



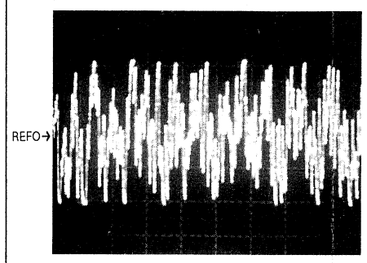
② CH1: FIN 1V/div.
③ CH2: FO+ 2V/div. 0.2s/div.
Test mode: No disc, Focus close



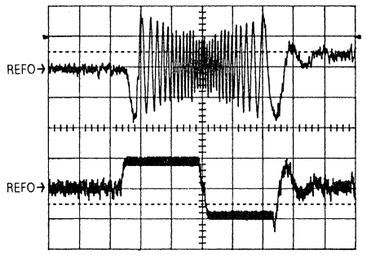
② CH1: FIN 1V/div.
⑦ CH2: SIN 1V/div. 0.5s/div.
Normal mode: Focus close (12cm)



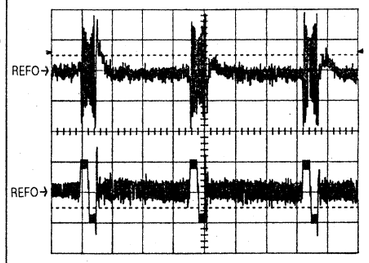
⑦ SIN 0.5V/div. 10ms/div.
Search (12cm disc)



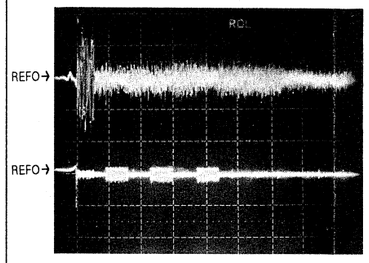
④ CH1: TEY 0.5V/div.
⑤ CH2: TIN 1V/div. 0.5ms/div.
Test mode: 32 track jump (FWD)



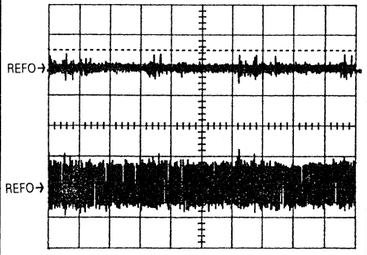
④ CH1: TEY 0.5V/div.
⑤ CH2: TIN 1V/div. 5ms/div.
Test mode: 100 track jump (FWD)



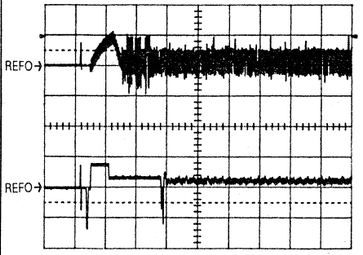
④ CH1: TEY 0.5V/div.
⑥ CH2: FEY 0.5V/div. 0.1s/div.
Normal mode: AGC after focus close



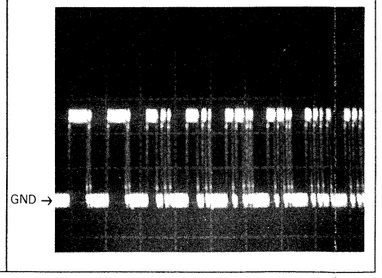
⑥ CH1: FEY 0.2V/div.
② CH2: FIN 0.5V/div. 20ms/div.
Normal mode: Play



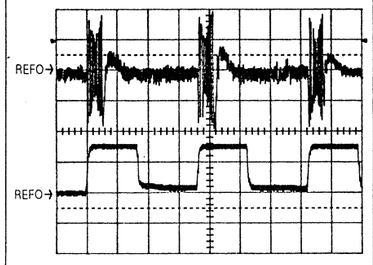
② CH1: FIN 1V/div.
⑦ CH2: SIN 1V/div. 0.5s/div.
Normal mode: Focus close (8cm)



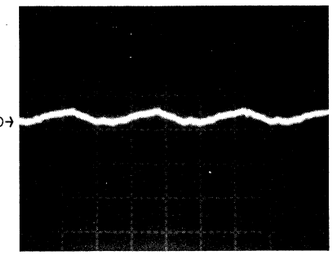
⑫ DATA 2V/div. 10µs/div.
Play



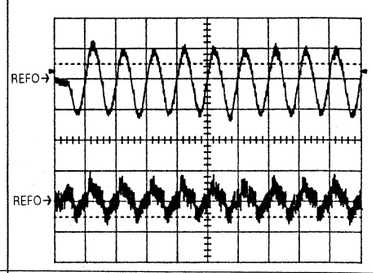
④ CH1: TEY 0.5V/div.
⑧ CH2: CIN 0.5V/div. 5ms/div.
Test mode: 100 track jump (FWO)



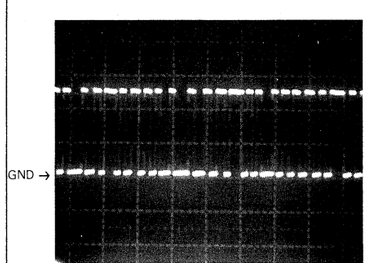
⑦ SIN 0.5V/div. 50ms/div.
Normal mode: 1Play (12cm disc)



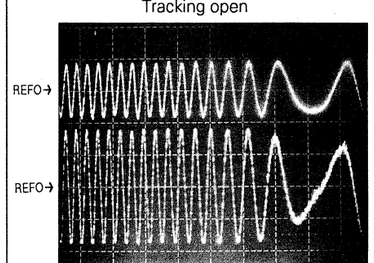
⑥ CH1: FEY 0.2V/div.
② CH2: FIN 1V/div. 1ms/div.
Normal mode: During AGC



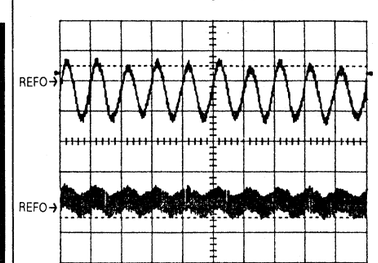
⑨ EFM 2V/div. 5µs/div.
Play



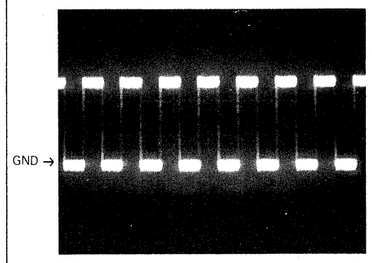
④ CH1: TEY 1V/div.
⑩ CH2: TEC 1V/div. 2ms/div.
Test mode: Focus closed
Tracking open



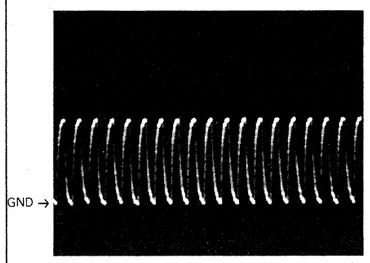
④ CH1: TEY 0.5V/div.
⑤ CH2: TIN 0.5V/div. 1ms/div.
Normal mode: During AGC



⑬ LRCK 2V/div. 20µs/div.
Play

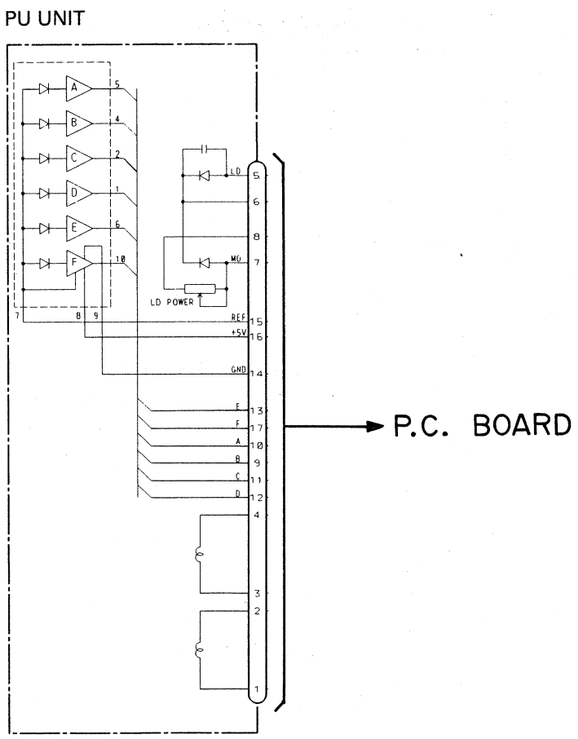


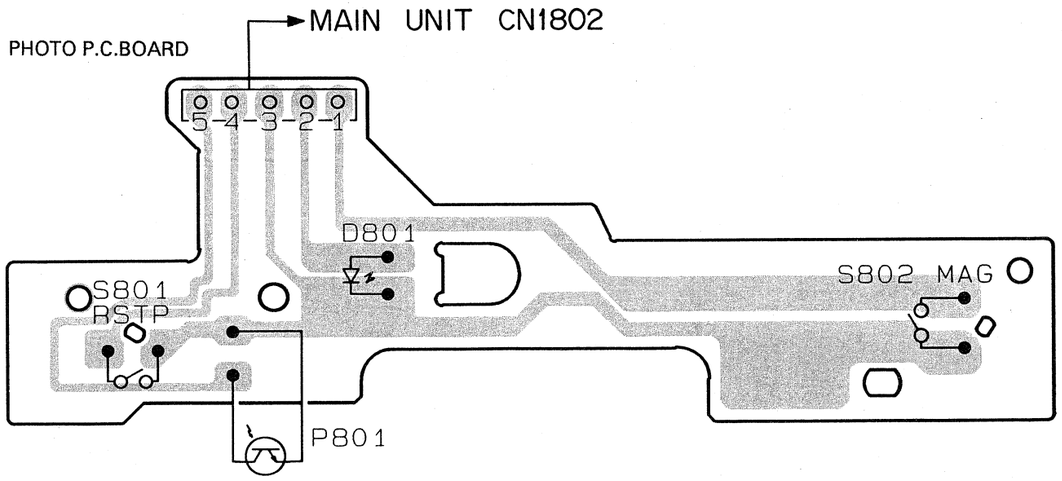
⑪ SCKO 2V/div. 1µs/div.
Play

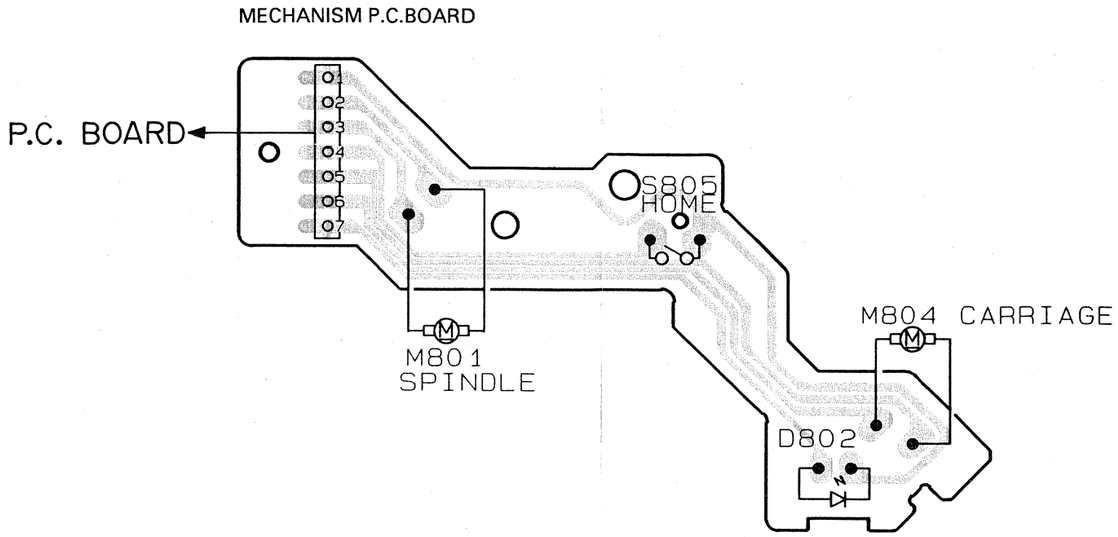


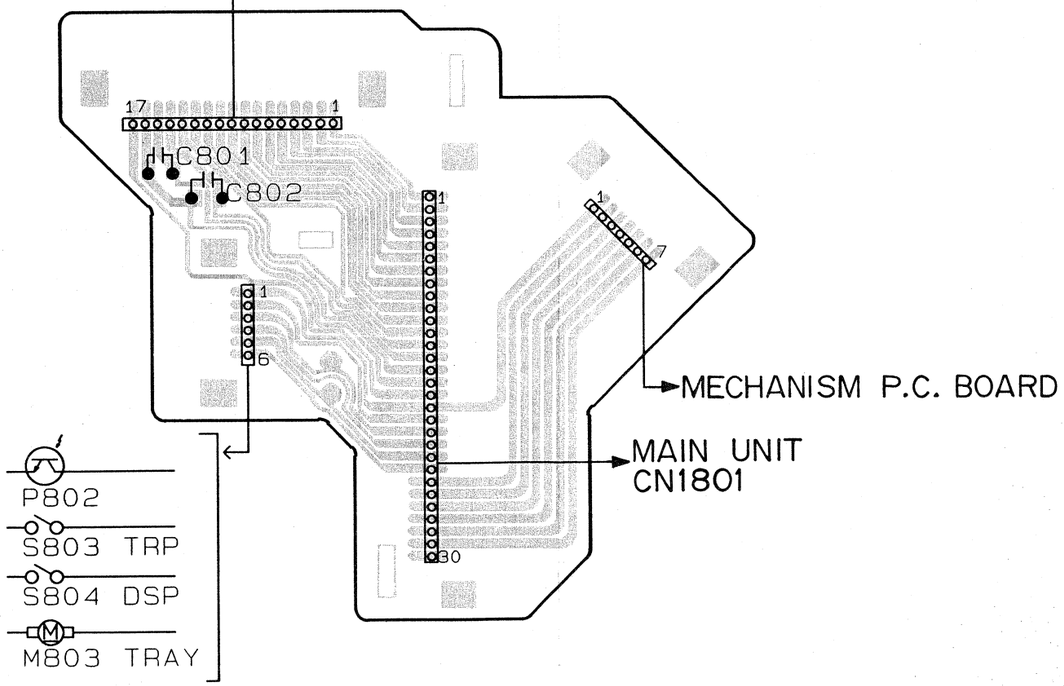
3. CONNECTION DIAGRAM(1)

● **CDX-FM67**









4 CARRIAGE

P.C. BOARD

IC. Q ADJ

VR1001
VR1002
VR1003
VR1004

IC1801 Q1801
Q1802 IC1702

Q1701
IC1001

IC1201 IC1701

Q1001

IC1601 IC1603

Q1708

Q1707

IC1401 Q1709
IC1602

IC1704

Q1401

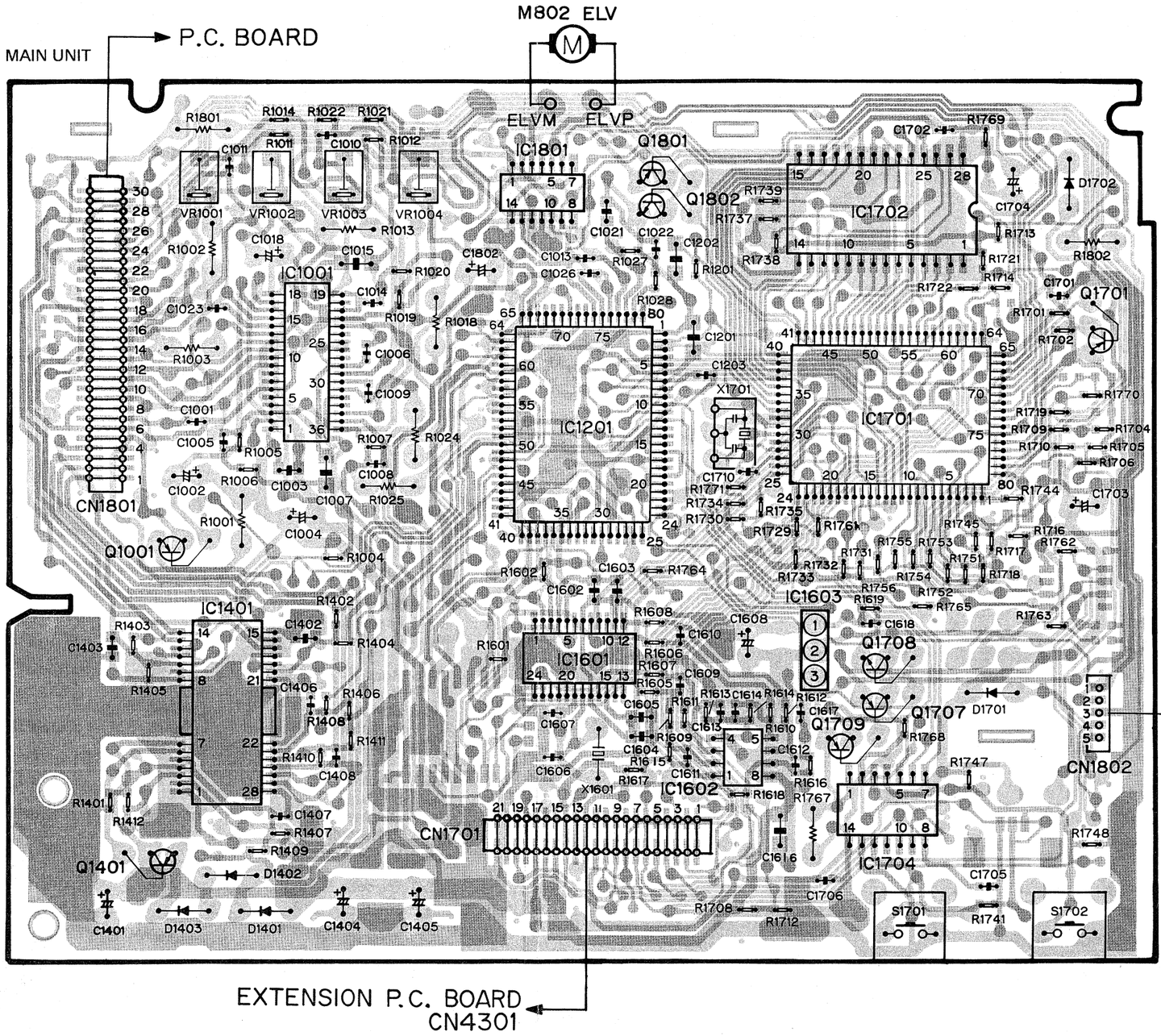
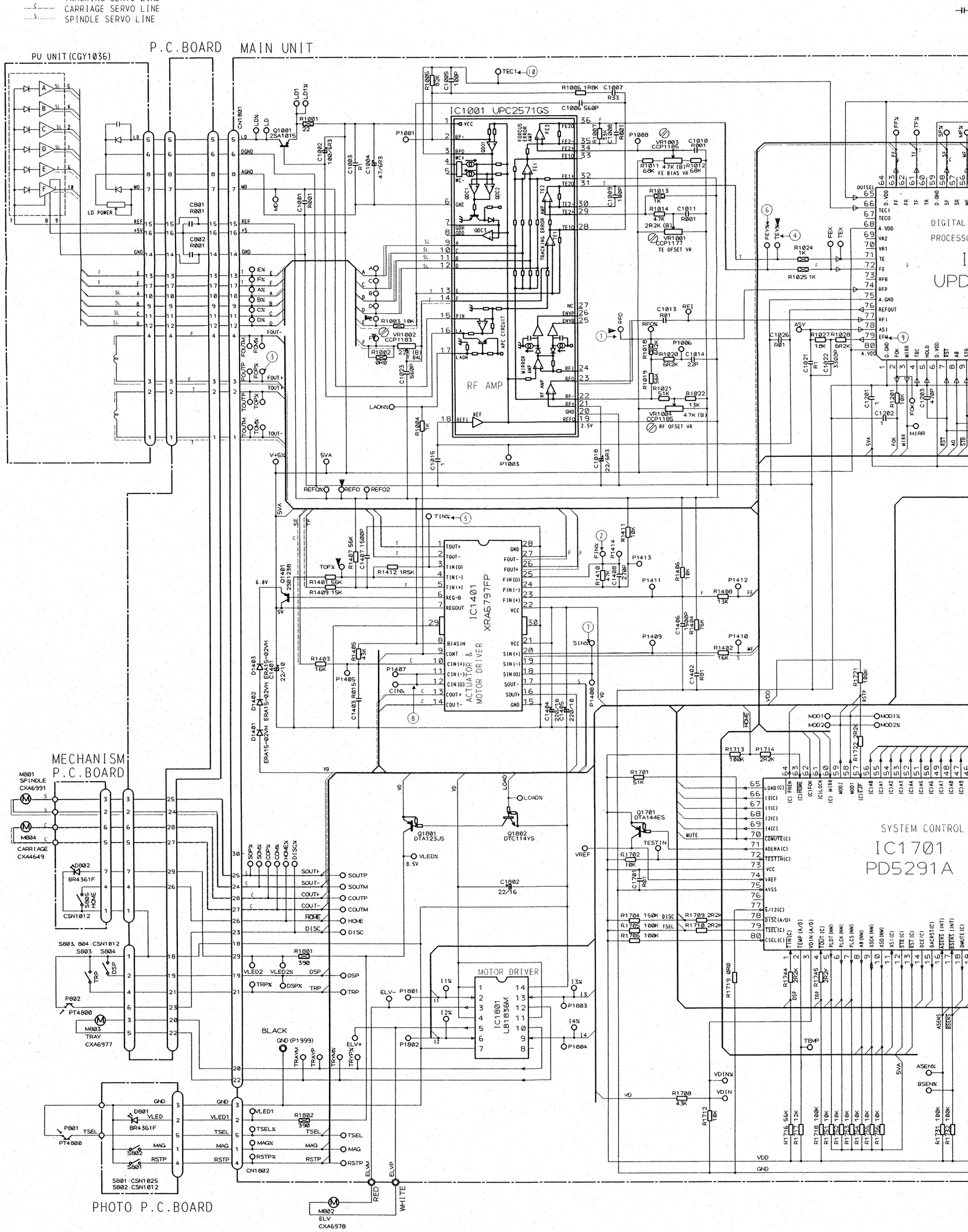


Fig.6

4. SCHEMATIC CIRCUIT DIAGRAM(1)

● **CDX-FM67**

SL SIGNAL LINE
F FOCUS SERVO LINE
T TRACKING SERVO LINE
C CARRIAGE SERVO LINE
S SPINDLE SERVO LINE



NOTE:

Symbol indicates a resistor.
No differentiation is made between chip resistors and discrete resistors.

Symbol indicates a capacitor.
No differentiation is made between chip capacitors and discrete capacitors.

Decimal points for resistor and capacitor fixed values are expressed as:
2.2→2R2
0.022→R022

SWITCHES:
MECHANISM P.C.BOARD
S805: HOME SWITCH·ON-OFF
PHOTO P.C.BOARD
S801: RSTP SWITCH·ON-OFF
S802: MAG SWITCH··ON-OFF
MISCELLANEOUS
S803: TRP SWITCH··ON-OFF
S804: DSP SWITCH··ON-OFF

The underlined indicates the switch position.

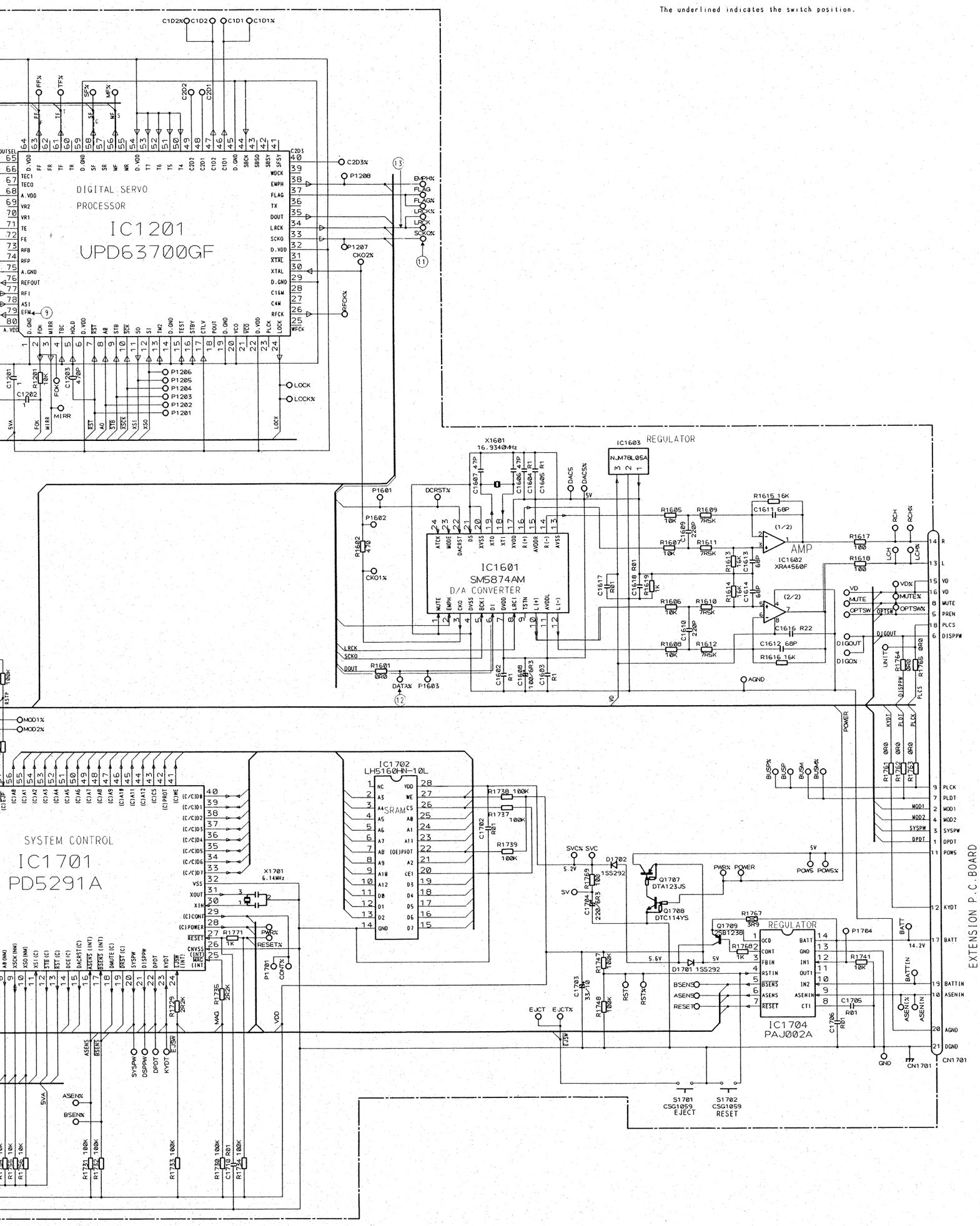
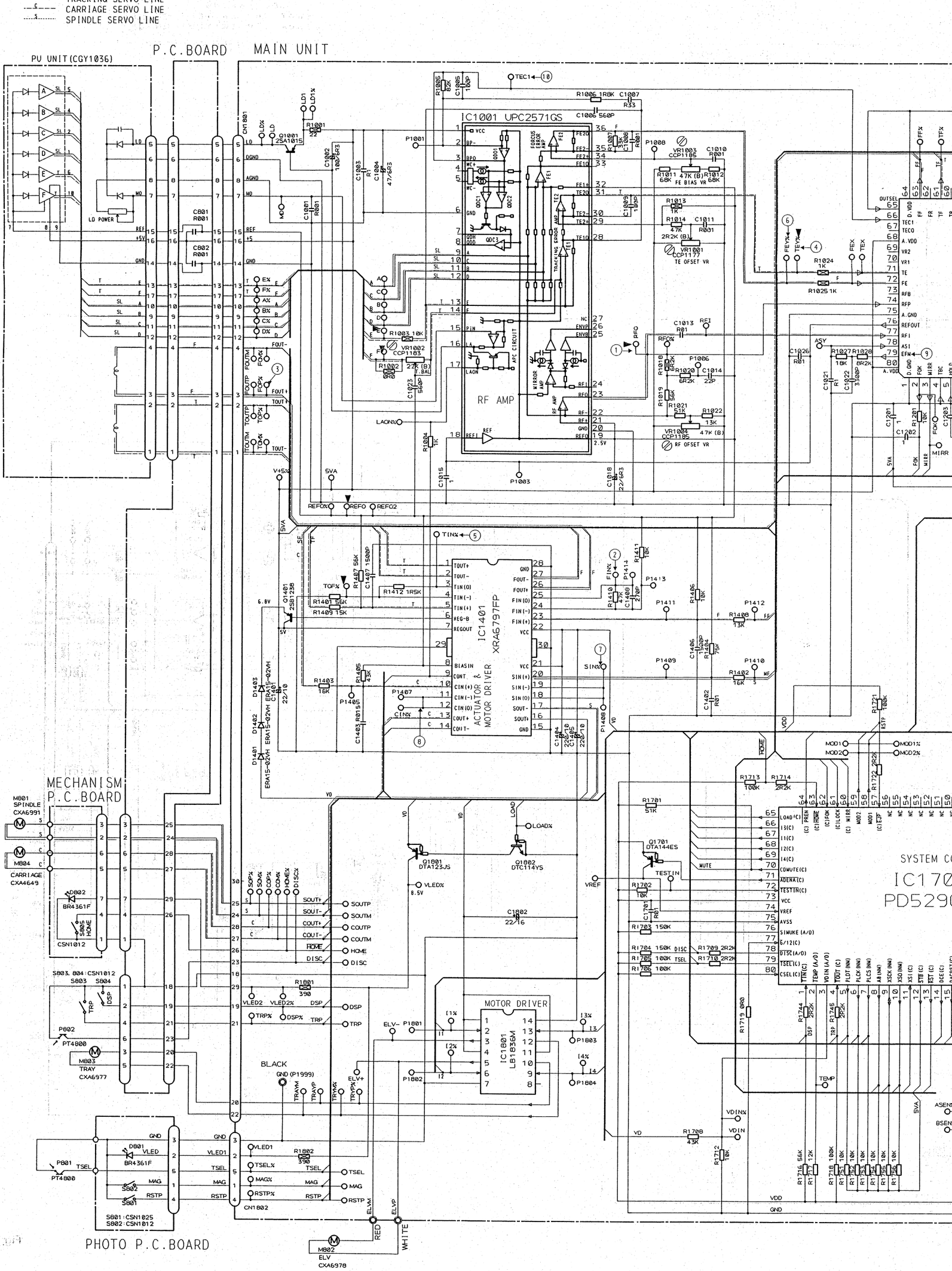


Fig.7

5. SCHEMATIC CIRCUIT DIAGRAM(2)

● CDX-FM63

SL SIGNAL LINE
F FOCUS SERVO LINE
T TRACKING SERVO LINE
C CARRIAGE SERVO LINE
S SPINDLE SERVO LINE



NOTE:

Symbol indicates a resistor.
No differentiation is made between chip resistors and discrete resistors.

Symbol indicates a capacitor.
No differentiation is made between chip capacitors and discrete capacitors.

Decimal points for resistor and capacitor fixed values are expressed as:
2.2→2R2
0.022→R022

SWITCHES:
MECHANISM P.C.BOARD
S805:HOME SWITCH·ON-OFF
PHOTO P.C.BOARD
S801:RSTP SWITCH·ON-OFF
S802:MAG SWITCH··ON-OFF
MISCELLANEOUS
S803:TRP SWITCH··ON-OFF
S804:DSP SWITCH··ON-OFF

The underlined indicates the switch position.

DIGITAL SERVO PROCESSOR
IC1201
UPD63700GF

SYSTEM CONTROL
IC1701
PD5290A

IC1601
SM5874AM
D/A CONVERTER

REGULATOR
IC1603
NJM78L05A

AMP
IC1602
XRA4560F

REGULATOR
IC1704
PAJ002A

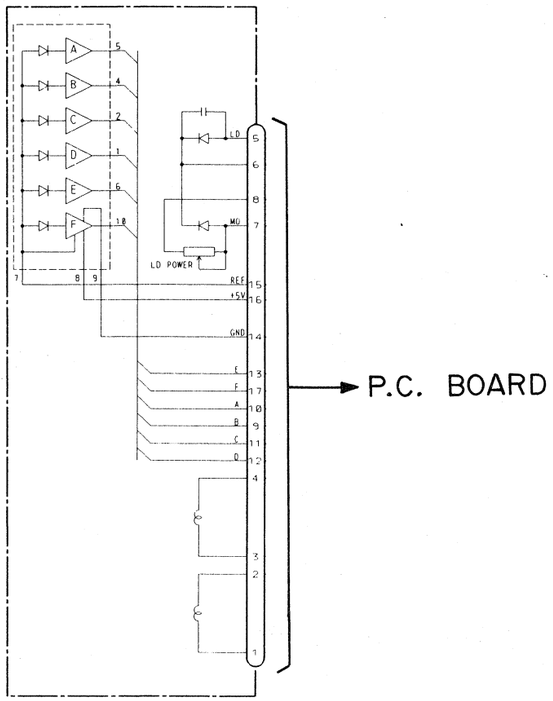
EXTENSION P.C.BOARD
CN4301

Fig.8

6. CONNECTION DIAGRAM(2)

● **CDX-FM63**

PU UNIT



MECHANISM P.C.BOARD

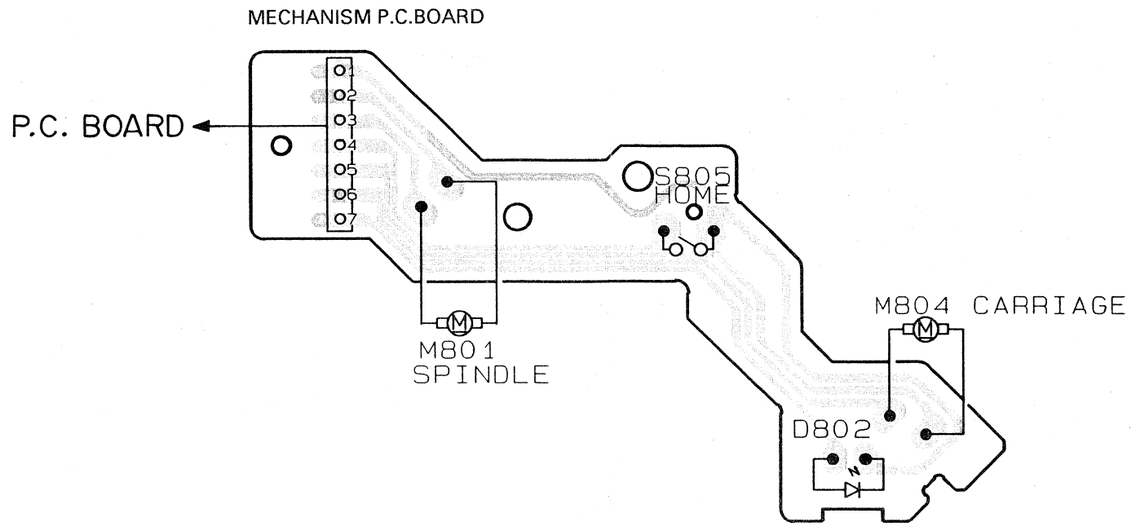
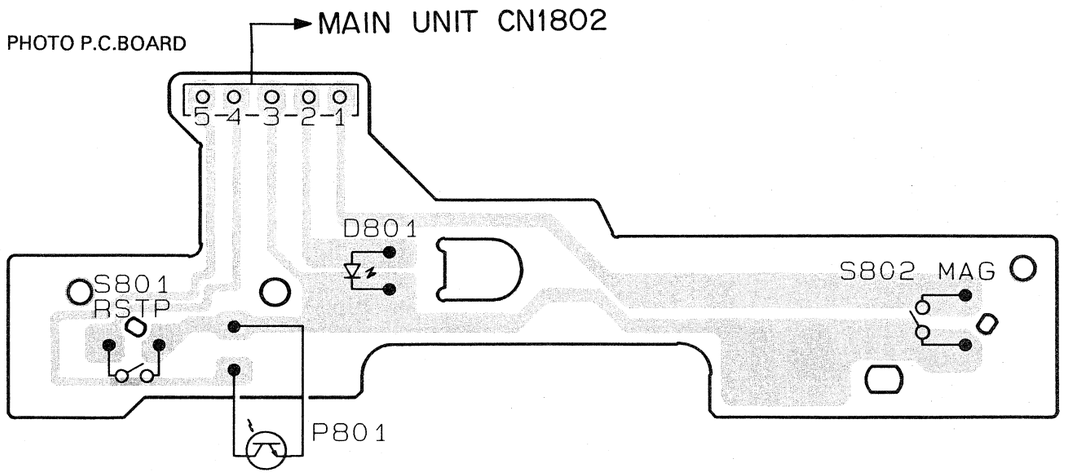
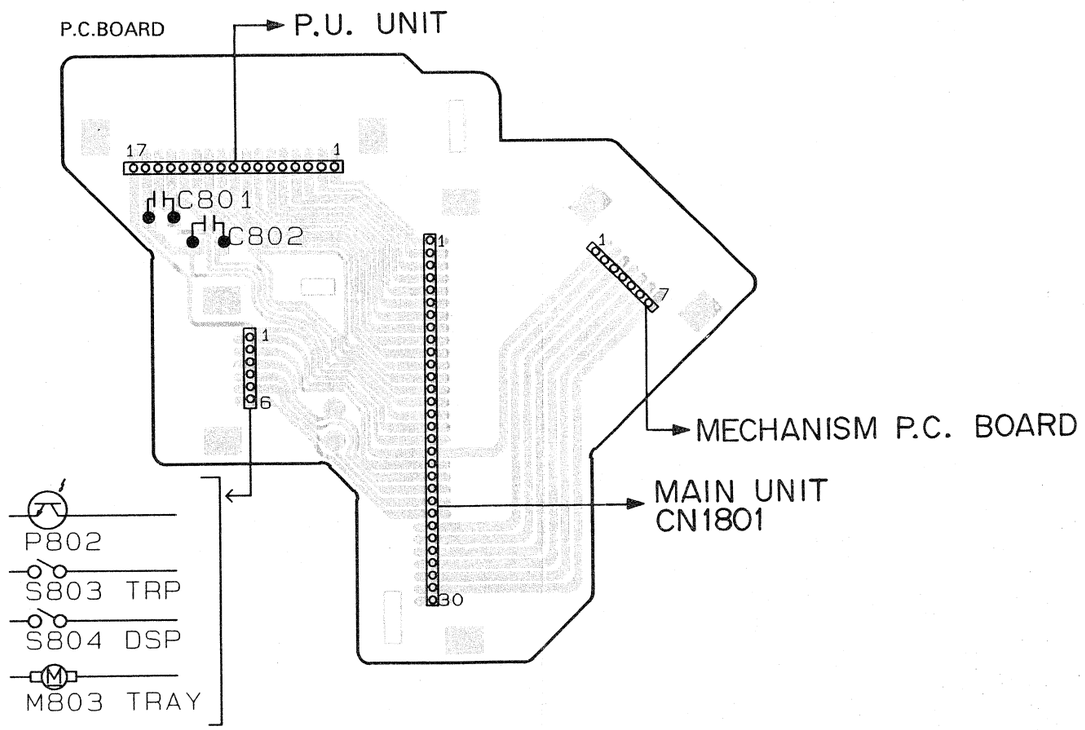


PHOTO P.C.BOARD



P.C.BOARD



CARRIAGE

P.C. BOARD

IC. Q ADJ

IC1801 Q1801 VR1001 VR1002 VR1003 VR1004

Q1802

Q1701

IC1001

IC1201 IC1701

Q1001

IC1601 IC1603

Q1708

Q1707

IC1401 Q1709

IC1602

IC1704

Q1401

MAIN UNIT

P.C. BOARD

M802 ELV

ELVM ELVP

CN1801

IC1801

Q1801

Q1802

IC1001

IC1201

IC1701

Q1001

IC1401

IC1601

IC1603

Q1708

Q1707

Q1709

IC1602

IC1704

Q1401

CN1701

X1601

X1701

S1701

S1702

JP1

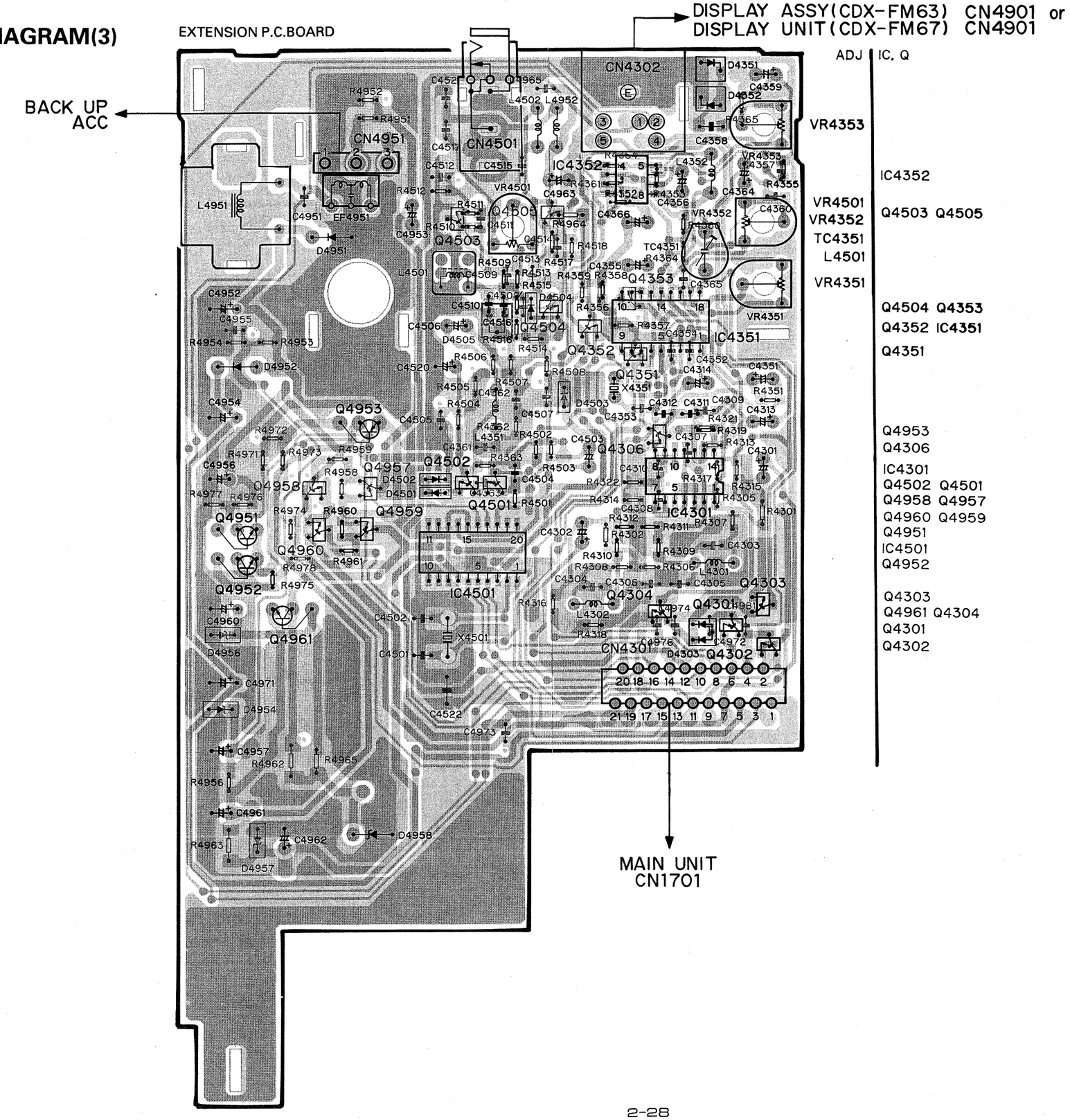
CN1802

PHOTO P.C. BOARD

EXTENSION P.C. BOARD
CN4301

Fig.9

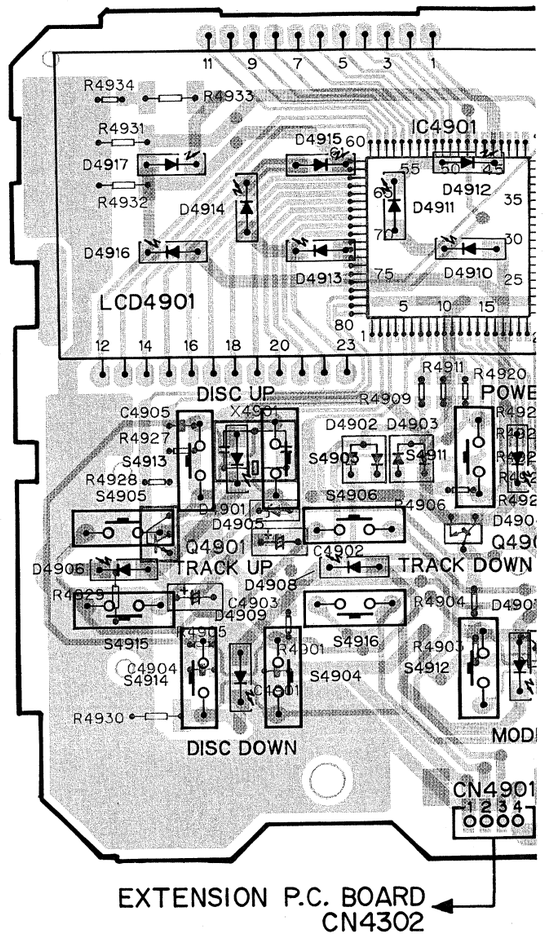
7. CONNECTION DIAGRAM(3)



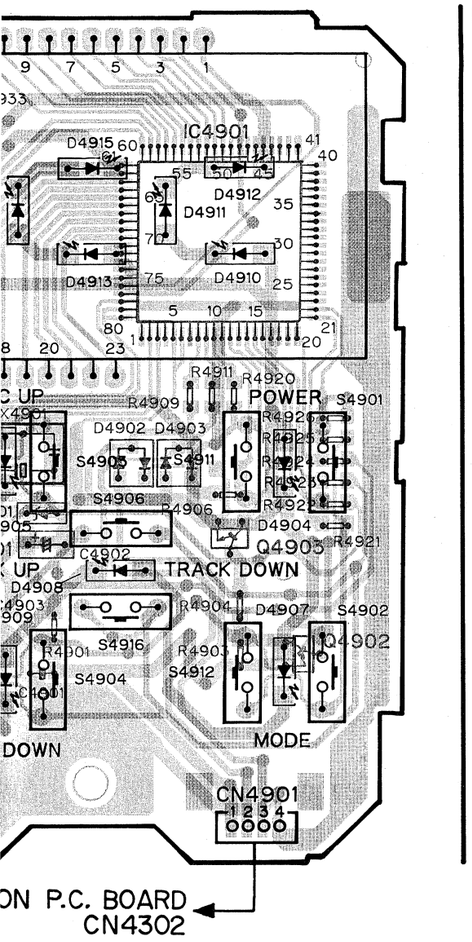
ADJ | IC, Q

VR4353
IC4352
VR4501
VR4352
Q4503 Q4505
TC4351
L4501
VR4351
Q4504 Q4353
Q4352 IC4351
Q4351
Q4953
Q4306
IC4301
Q4502 Q4501
Q4958 Q4957
Q4960 Q4959
Q4951
IC4501
Q4952
Q4303
Q4961 Q4304
Q4301
Q4302

DISPLAY ASSY (CDX-FM63)



M63)



IC. Q

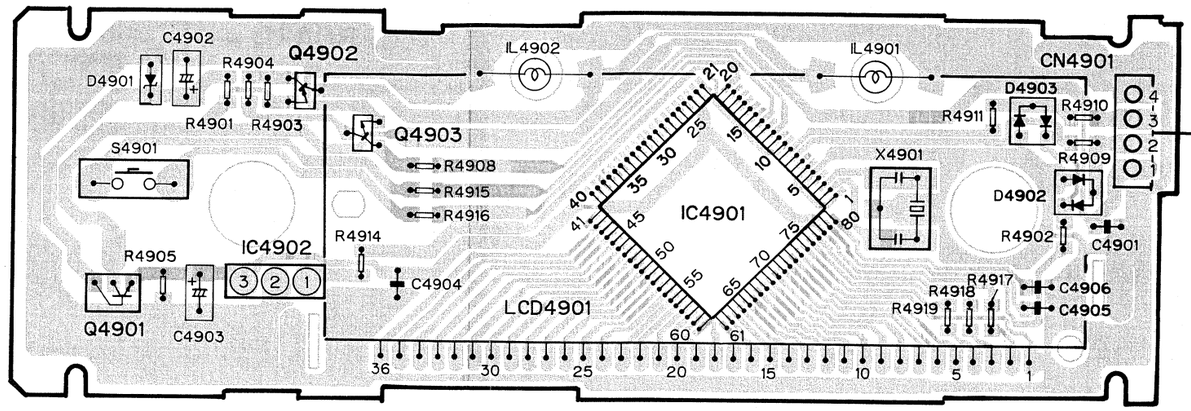
IC4901

Q4901
Q4903

Q4902

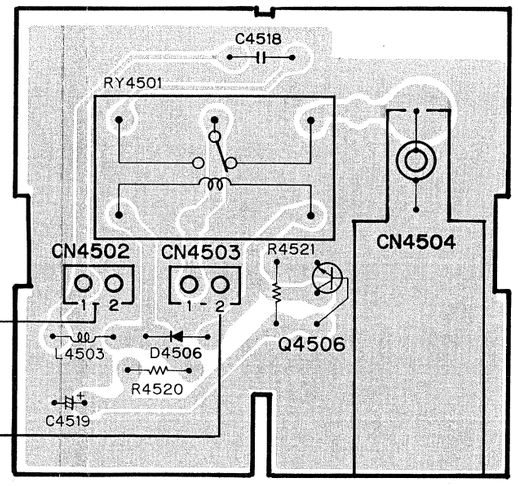
DISPLAY UNIT (CDX-FM67)

IC. Q Q4901 IC4902 Q4902 Q4903 IC4901



EXTENSION P.C. BOARD
CN4302

ANTENNA UNIT



EXTENSION P.C. BOARD
CN4501

ANTENNA INPUT

Q

Q4506

Fig.10

8. SCHEMATIC CIRCUIT DIAGRAM(3)

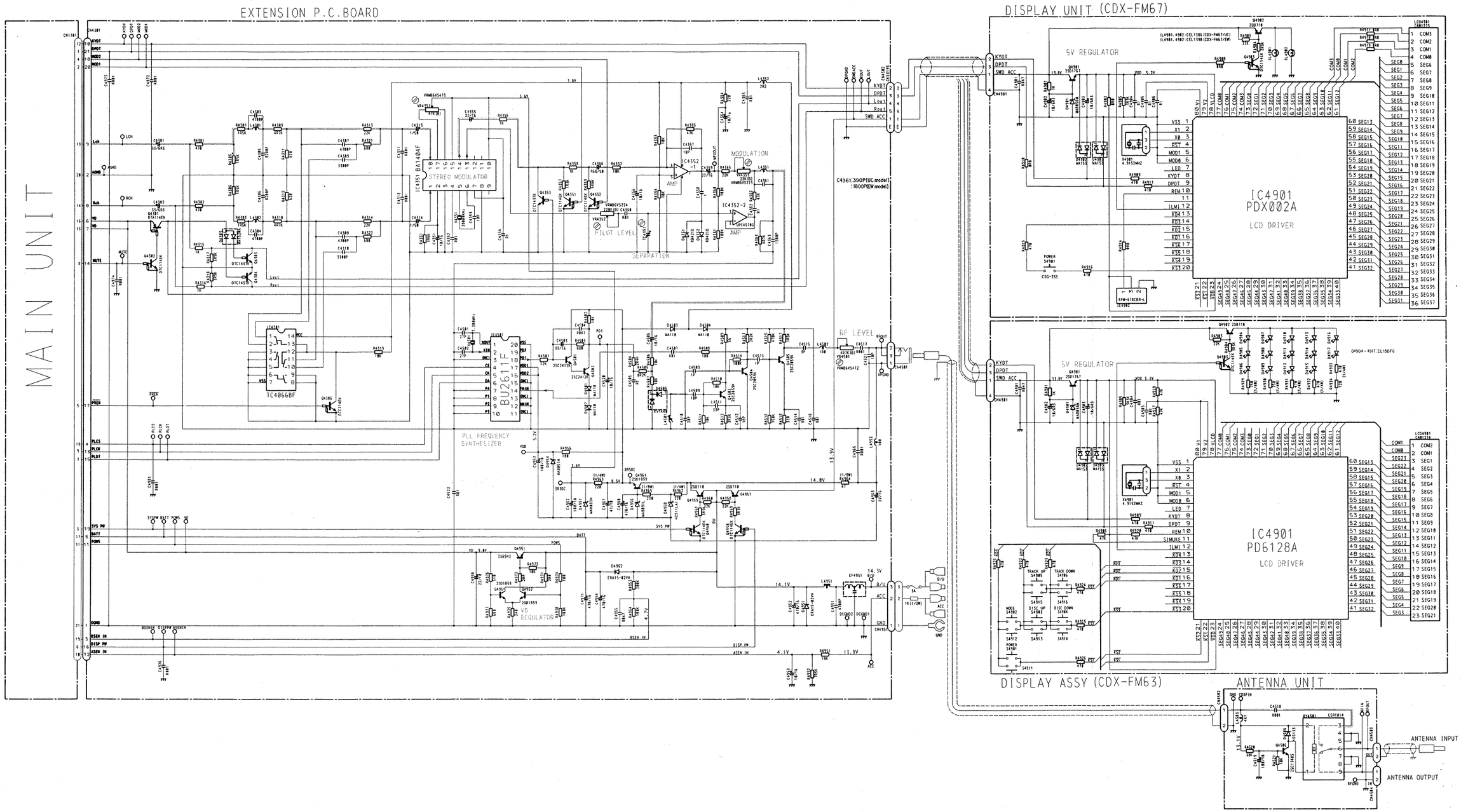


Fig.11

9. BLOCK DIAGRAM

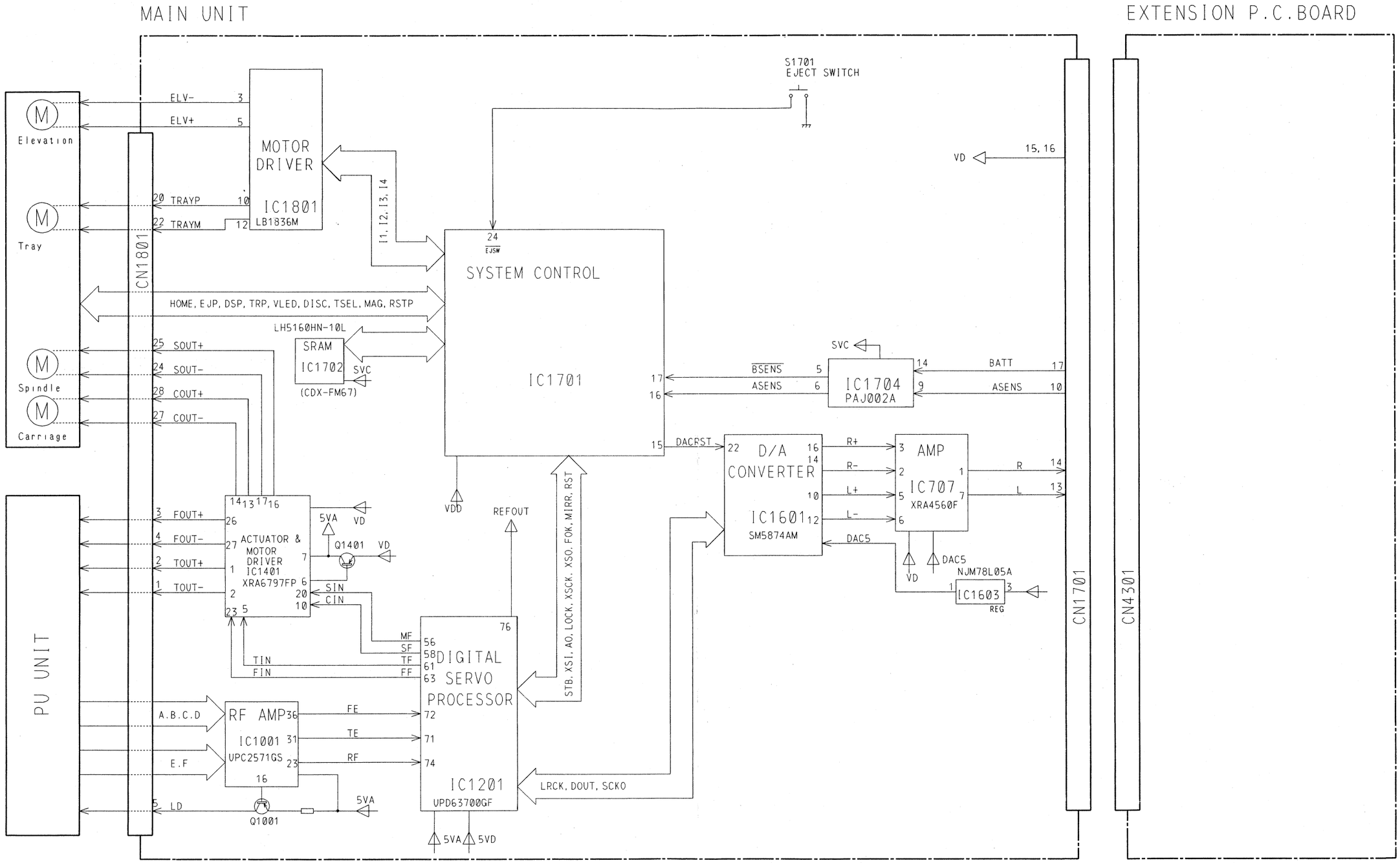


Fig.12

8. SCHEMATIC CIRCUIT DIAGRAM(3)

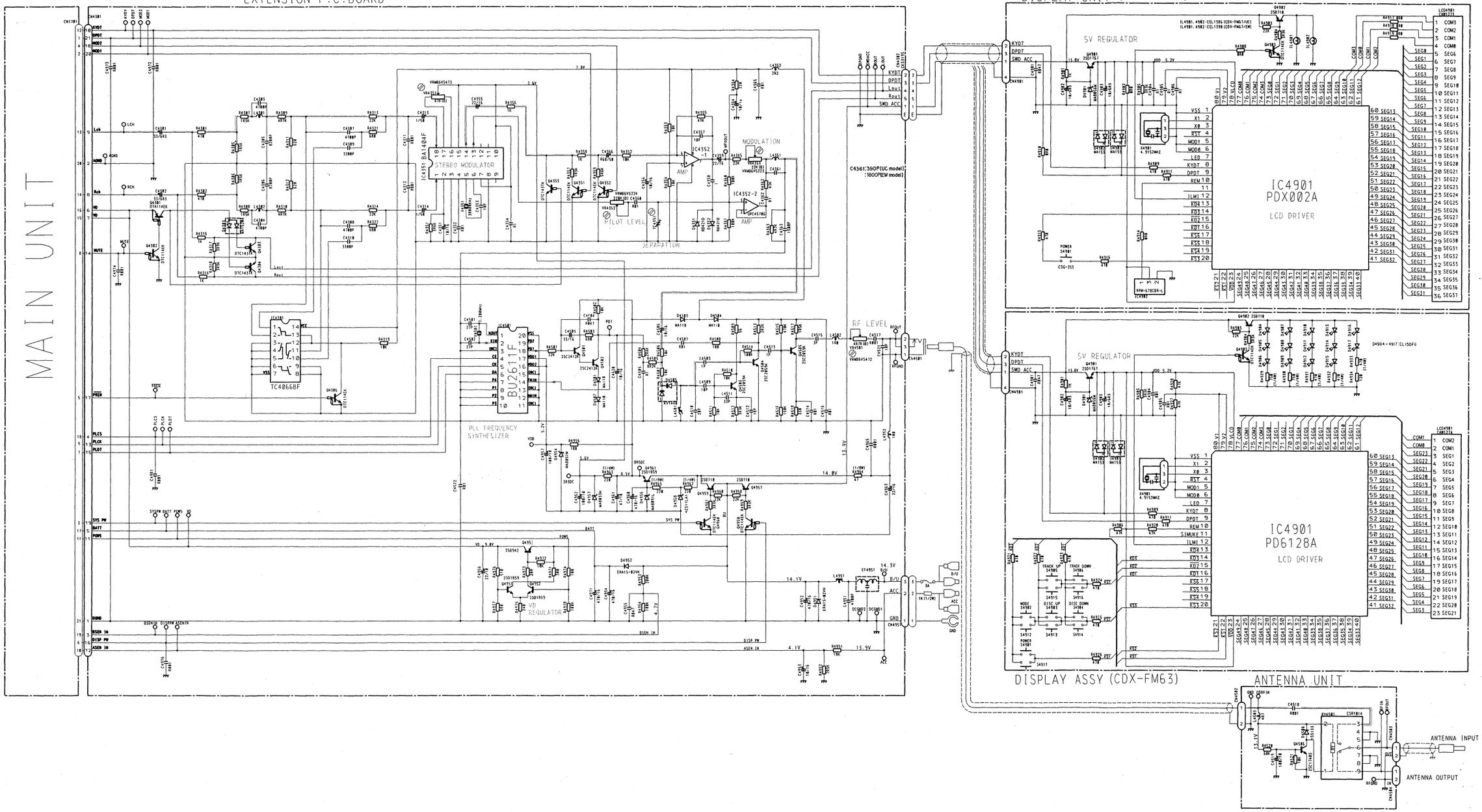


Fig.11

9. BLOCK DIAGRAM

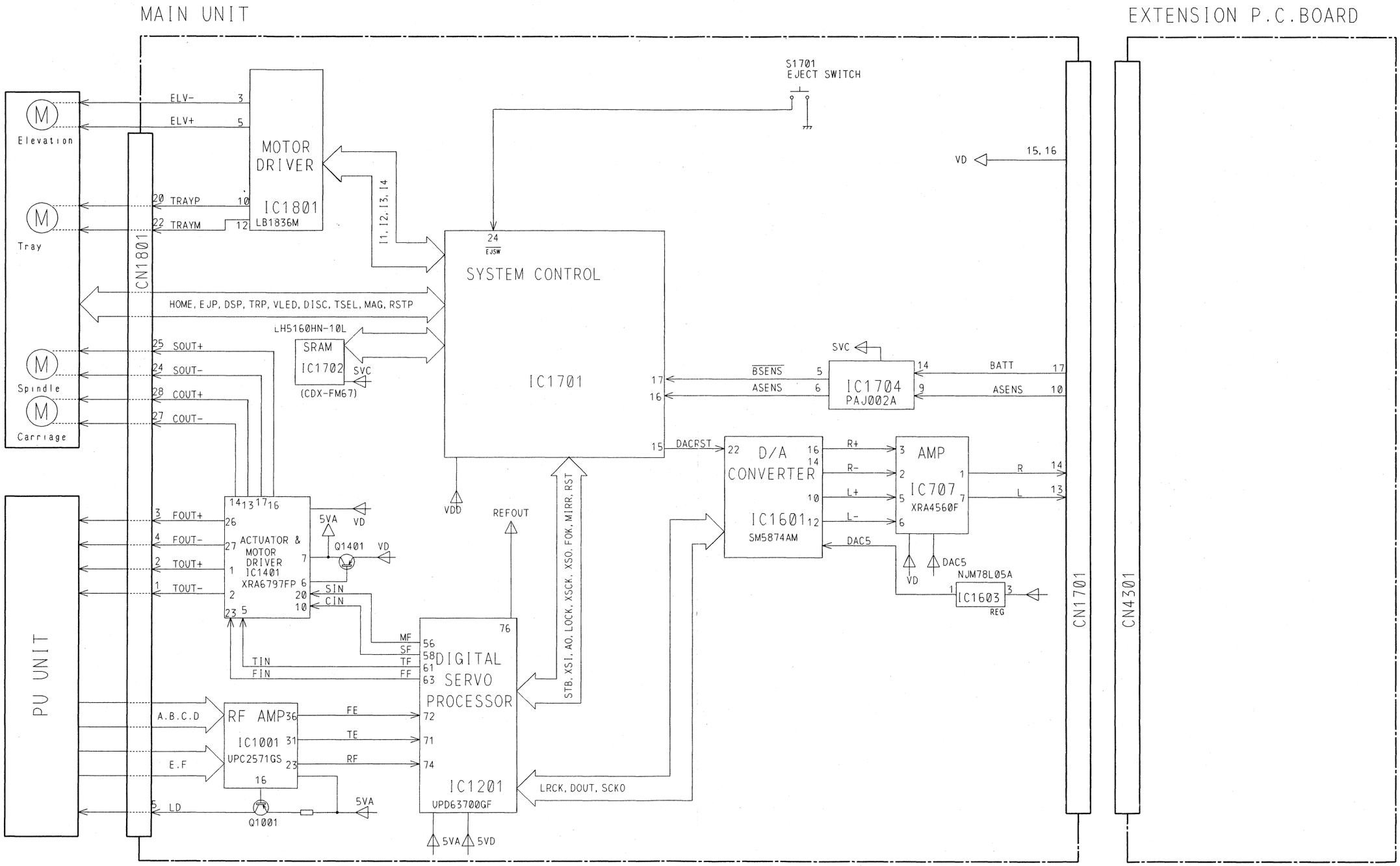


Fig.12

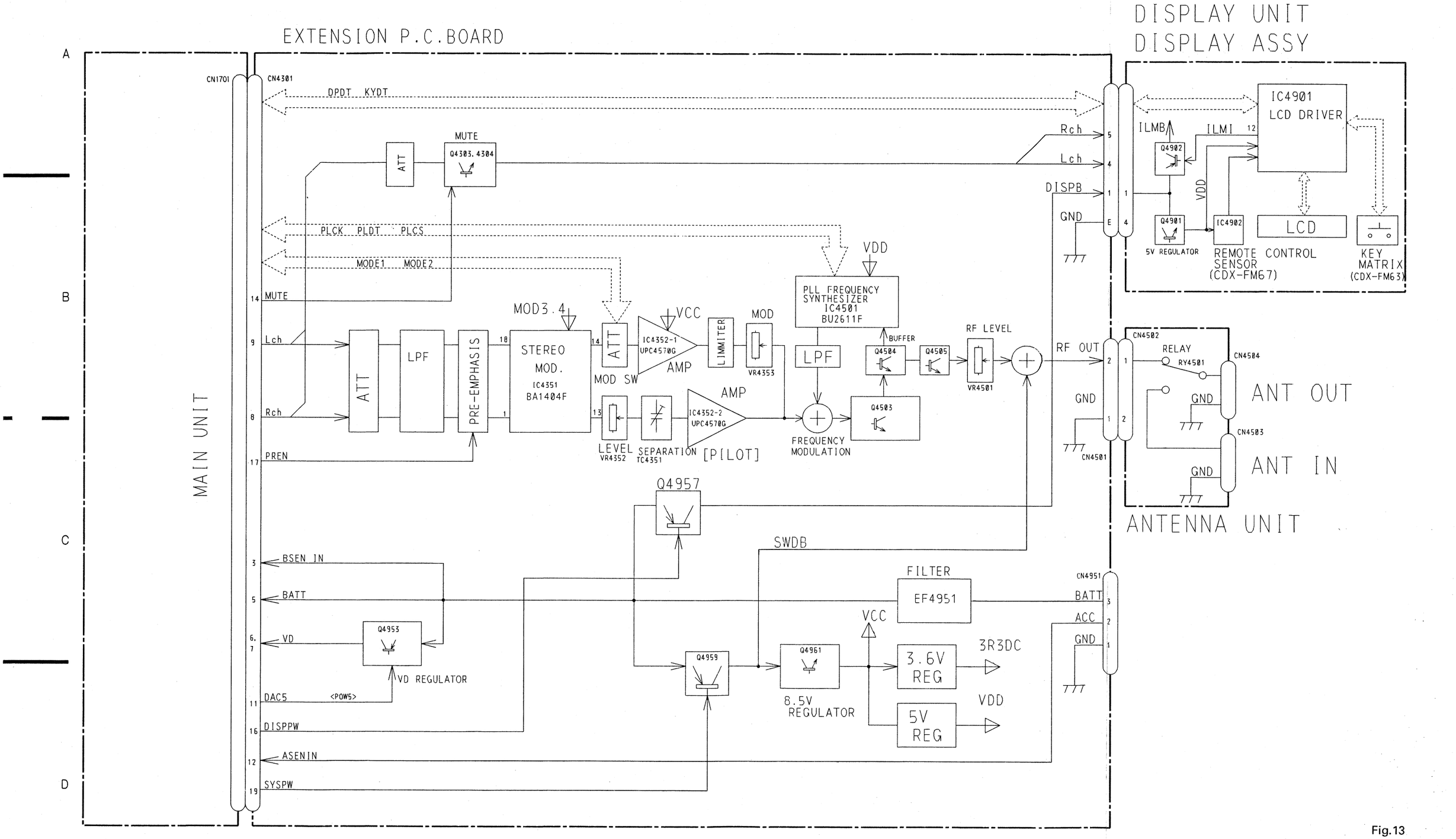

EXTENSION P.C.BOARD
MAIN UNIT
CN1701
CN4301
DPDT KYDT
PLCK PLDT PLCS
MODE1 MODE2
MUTE
ATT
Q4303. 4304
Lch
Rch
PREN
LPF
PRE-EMPHASIS
STEREO MOD.
IC4351 BA1404F
MOD3. 4
MOD SW
IC4352-1 UPC4570G
AMP
VCC
LIMMITER
MOD
VR4353
LEVEL VR4352
SEPARATION TC4351
IC4352-2 UPC4570G
[P]LOT
PLL FREQUENCY SYNTHESIZER IC4501 BU2611F
VDD
FREQUENCY MODULATION
BUFFER
Q4504
Q4505
Q4503
RF LEVEL
VR4501
Q4957
SWDB
BSEN IN
BATT
VD
Q4953
VD REGULATOR
DAC5 <POW5>
DISPPW
ASENIN
SYSPW
FILTER
EF4951
Q4959
Q4961
8.5V REGULATOR
VCC
3.6V REG
3R3DC
5V REG
VDD
CN4951
BATT
ACC
GND
DISPLAY UNIT
DISPLAY ASSY
IC4901 LCD DRIVER
ILMB
ILMI
Q4902
Q4901
5V REGULATOR
VDD
IC4902
REMOTE CONTROL SENSOR (CDX-FM67)
LCD
KEY MATRIX (CDX-FM63)
Rch
Lch
DISPB
GND
RF OUT
CN4502
RELAY
RY4501
CN4504
ANT OUT
CN4503
ANT IN
CN4501
ANTENNA UNIT

Fig.13